



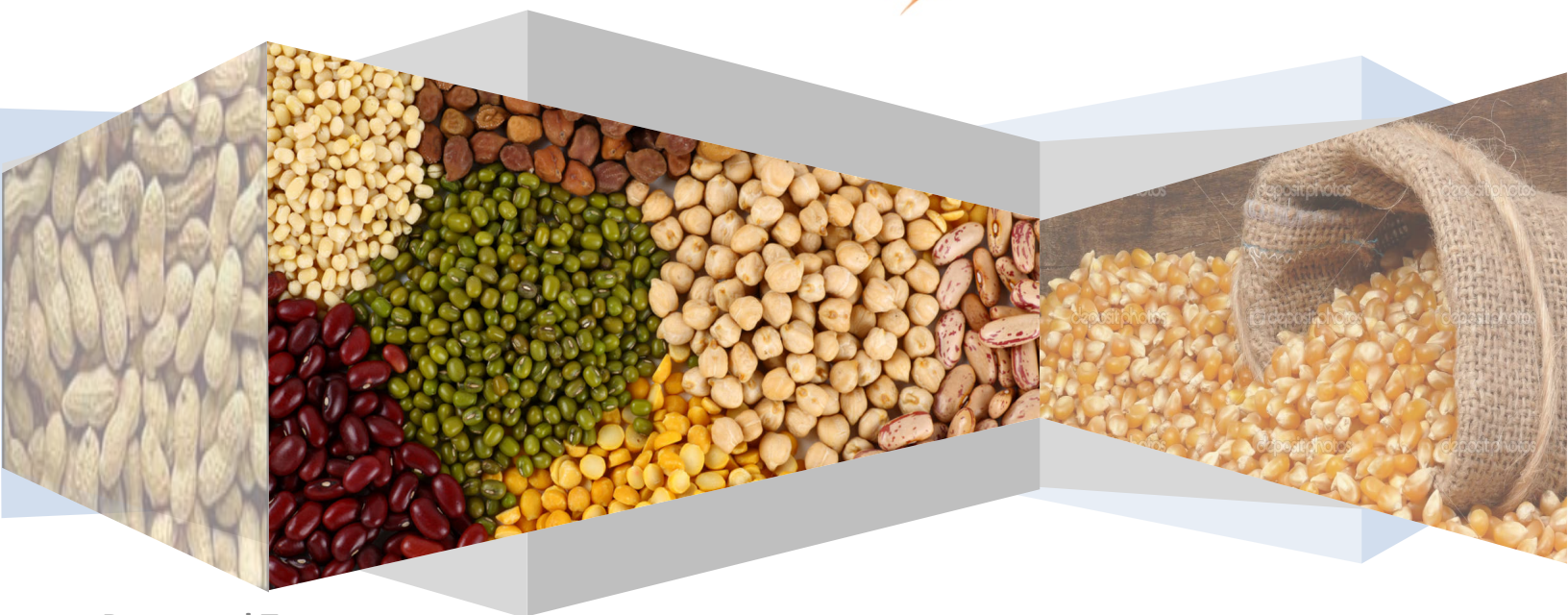
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## Trade Promotion in Eastern Africa through Commercial Village Stores

[Impact Assessment Report - Draft] Uganda & Kenya



Presented To:

**Farm Concern International**

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### Terms of Definition

**Actors/Players:** Those involved in producing, processing, trading or consuming a particular commodity / product.

**Business Development Services:** These are auxiliary support services that a business requires so as to operate effectively and efficiently e.g. transport, packaging and financial services.

**Commercial Villages:** These are village based agro-trading blocs evolved from social orientation to commercial agenda through the Commercial Village Model.

**Commercial Producer Group:** Refers to primary commercialized smallholder groups within a commercial village comprising of neighbours' collectively working together as business partners on agro-business enterprises to supply identified markets.

**Commercial Villages Model:** Is a hybrid of farmer groups, farmer associations, co-operatives and agro-enterprise designed and implemented by FCI as an approach aimed at scaling up interventions with a significant number of farmers to achieve economies of scale and enable the smallholder farmers participate as key players in mainstream value chains.

**Domestic Market:** The domestic market includes all trade mechanisms within one country, excluding exports and imports.

**Market Segments:** Buyers are stratified for targeting based on their characteristics. Major segments in agro-trading smallholder producers marketing strategy include formal and informal buyers

**Value Chain:** This is a sequence of related business activities undertaken in transforming raw materials into a product that is sold or consumers. These include the direct functions of primary production, collection, processing, wholesaling and retailing, as well as the support functions, such as financial services, transport, packaging and advertising.

**Value Networks;** Value Networks is a much more advanced market systems tools that seeks to appreciate the partnerships and networks that actually supports and maintains a Value Chain.

**EAC maize standards;** East African Community maize standards

**TOT;** This refers to the trainer of trainers.

## 1.0 Executive Summary

Commercial Village Stores (CVS) project addresses the challenges faced in the cereals and tropical pulses regional markets with an emphasis on enhanced village participation in mainstream markets. While smallholders invisibly drive and fuel staples trade, they have suffered a sideline due to low recognition of their fundamental role in trade.

Smallholders invisibly drive and fuel staples trade, however they have suffered a sideline due to low recognition of their fundamental role in trade.

The project's focus has been to encourage smallholder farmers to properly harvest and store their cereals and tropical pulses, since cereals and tropical pulses have a higher shelf life, this enables the farmers to afterwards sell the surplus harvest in batches as opposed to selling all the produce after harvesting which enables them enjoy higher earnings since they can manage to sell when demand is high therefore increasing their incomes. The project's impact as highlighted by the farmers in the focus group discussions conducted include longer storage periods, increased incomes over 44%, lower post harvest losses, organized and proper storage methods i.e. from bedrooms and sitting rooms to metal silos, improved mud huts, stores with rodent guards etc these and other benefits are also shared in the report. Post harvest technologies and storage methods applied in the past have largely failed to meet the quality standards required and another facet of this project was to upgrade as well as change the methods used, retaining those that worked such as the traditional stores and embracing new postharvest and storage methods such as handheld threshers and shellers vis-à-vis 'beating' of grains in a sack that resulted in lower yields due to breakage of grains. Other enhanced methods introduced are the use of hermetic cocoons to store grains with the right moisture content measured with the use of a moisture meter. Adoption of these technologies has had significant impact with the farmers generating higher yields, storing their grains longer and therefore generating higher incomes for the small holder farmers as stated by one of the commercial village farmers, Phyllis Karimi, who used to store her cereals and tropical pulses for a period of two weeks to a month but she can now store the grains for a longer time and fetch higher prices. Another one, Titus, was able to sell his cereals and pulses at Kshs 3,600 after storing for three months after harvesting compared to the going rate of Kshs 2,500 during the harvest.

The average farm size in Mt. Kenya region is **3.2 acres** per household and **2.5 acres** in Uganda

In terms of demographics, the average farm size in Mt. Kenya is 3.2 acres per household and 2.5 acres in Uganda. This can further be categorized with the average acreage in Mt. Kenya region sites being Imenti- 3 acres, Tigania East - 2.6 acres, Tigania west - 2 acres and Tharaka having the largest acreage at 5.1 acres though the population is sparse and the area is arid. In Jinja region Butagaya had the lowest land per household at 1.8 acres, Buyengo had 2.2 acres whilst Busede had an average of 2.7 acres. This is sizeable considering that in most areas food basket regions continue to diminish as land is further subdivided in the families and some subdivided and sold as residential areas. In terms of gender representation in Kenya 63% (6,381 of 10,128) of the participants are women whilst in Uganda women represented 53%. Men representation on the other hand was 37% and 47% respectively.

**Youth** participation was **25%** and **28%** in Kenya and Uganda respectively.

Youth participation was also significantly noted in this project with 25% (2,532 of 10,128) and 28% (1,450 of 5178) being youth in Kenya and Uganda respectively.

Market value of the commodities produced, consumed, stored and sold in Kenya aggregated to USD 11,911,200 (Kshs 945,826,774) in year one and USD 19,084,147 (Kshs 1,632,663,581) for year two the total sum being USD 30,995,347 (Ksh 2,578,490,355) over this pilot project phase. With information from previous research indicating that at least 47% of farm produce is consumed by the farmers, 44% is sold off for income and 9% is for soil fertility. We can further deduce that with the mentioned percentages USD 14,567,813 was consumed and USD 12,708,092 was sold.

**USD 11,911,200** - Value of staples produced for markets and household consumption in Mt. Kenya in **Year 1**.

**USD 30,995,347** - Value for staples in **Year 2**

This market value could even increase if the farmers are to plant the right varieties for their region. This is because it was noted from the discussions with farmer that they are not well informed of the varieties that would generate optimal yield for their ecological zones, an area that needs to be further developed to ensure that the yields are optimal and that the farmers are well aware of these varieties. This coupled with market led agriculture systems where farmers' decisions to plant are informed by market demand and linkages to these markets, it is envisaged that the farmers with these introduced technologies will not dispose off their harvest as soon as it is ready and would then generate higher returns for these small holder farmers. Business forums conducted where farmers met key buyers rather than distribution channels dominated by brokers who leave farmers impoverished and as much as they continue to plant year in year out the incomes generated from the output are not worth which further leads to low incomes against a rising cost of living and inflation rate.

The project was well received in the two regions with registration in Mt. Kenya Region being 10,128 farmers surpassing the target of 10,000 farmers and those in Jinja Region being 3,187 and those in Bushenyi being 2,000 farmers the target in Uganda was 5,000 farmers. Storage and marketing was done using the commercial village model and was effective due to the collective marketing model utilized which enables the farmers to build their capacity from training provided where all the farmers are trained on best practices for cereals production, post harvest handling as well as storage methods, there are also

Household Survey reveals that staples produced are **47% for consumption** and by the **44% for markets** while **9% for soil fertility**.

**Village Business Forums (VBFs)**, where farmers, buyers/traders and BDS players meet and agree on relevant market institutions (trading rules, business partnership practices, terms of engagement, among others).

demonstrations on various activities carried out such as shelling, sorting, winnowing and drying among others. Through the Commercial Villages Model, farmers are also exposed to business forums where they interacted with potential customers to enable them understand the market needs as well as identify would be customers. They also enjoyed the economies of scale derived from collective bulking, joint input sourcing through linkages facilitated with suppliers, reduced costs

and accessing high volume buyers whereas without the Commercial Villages approach they would have individually not been able to access these markets.

The farmers should be encouraged to continue building on what was started that this should not be another project that winds up but rather, the commercial villages should continue building on the benefits realizable. They should be encouraged to actively seek support through agricultural extension services such as demonstrations, information and training. Also of critical continued necessity are business and marketing skills extension support that will continually be needed by small scale farmers if they are to be competitive market players and business partners. These can be through various platforms such as Village Business Forums (VBFs) where farmers, buyers/traders and BDS players meet and agree on relevant market institutions (trading rules, business partnership practices, terms of engagement, among others).

There is also need for crop diversification to promote other potential crops based on market demand. Some of these include but are not limited to Soya and Cotton, highly sought after crops but lack in supply and therefore have had to be imported due to lack of sufficient quantities in the market. The project was implemented in two regions in two countries Mt. Kenya region and Jinja region in Kenya and Uganda respectively however, there is need to implement the project in other regions as well for the benefits achieved through its multifaceted approach which focuses on food security, income and poverty eradication.

There is need to implement the project in other regions as well for the benefits achieved through its multifaceted approach which **focuses on food security, income and poverty eradication.**

## 2.0 Background

Staple foods are foods "eaten regularly and in such quantities as to constitute the dominant part of the diet and supply a major proportion of energy and nutrient needs," for a certain regions. Staple foods vary from place to place, but are typically inexpensive or readily available foods that supply one or more of the three macronutrients needed for survival and health: carbohydrates, proteins, and fat, such as cereals and tropical pulses, tubers, legumes, or seeds. The staple food of a specific society may be eaten as often as every day, or every meal. Early civilizations valued staple foods because, in addition to providing necessary nutrition, they can usually be stored for a long period of time without decay with the use of the right post harvesting and storage methods.

Sub Saharan African economies are characterized by largely small scale based and subsistence production systems that support economies that are by and large agrarian. Global food production on the other hand has increased in recent decades but has stagnated in many parts of Africa, despite the continent having 'abundant' arable land and labour. While food production has grown globally by 145% over the past 40 years, African food production has fallen by 10% since 1960 with 70% of Africans engaged in farming; those who are undernourished on the continent have also risen by 100 million to 250 million since 1990.<sup>1</sup> The situation has been exacerbated by adverse climatic changes, declining soil fertility loss of soil biodiversity and general biodiversity degradation that require adaptation of farming systems by growing the indigenous crops that are drought resistant and stable within the humid and changing weather patterns in the farming countryside of Sub Saharan Africa.

The evolution in the past 40 years has seen a shift from a diversity of crops ranging from short-term and perennial cropping systems, to currently a dominating cash-crop, mono-cropping production that is seen by many as most suitable system. Though this shift was initially intended to build stable livelihoods through consistent incomes, it has drastically reduced access to nutrition, household income diversification and increased vulnerability of the poor, particularly when contending with adverse weather patterns. A commercialization orientation is critical to ensuring increased incomes and better livelihoods and even increased employment opportunities for those working in this area thus assisting in bridging this gap.

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<sup>1</sup> <http://www.bbc.co.uk/news/science-environment-11890702>

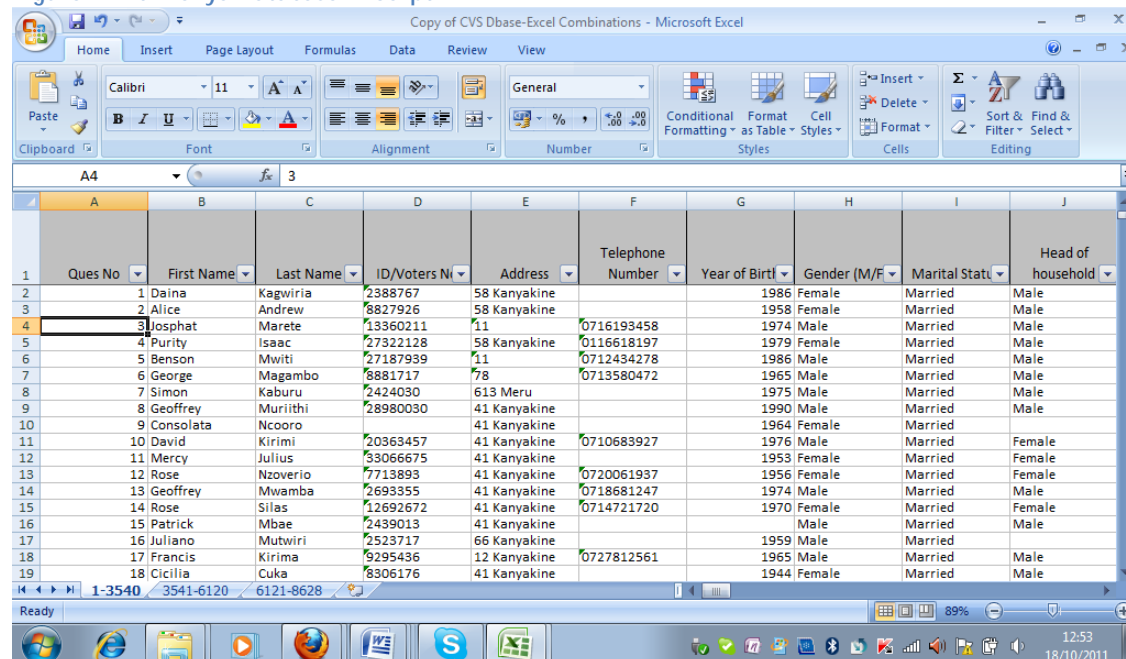
### 3.0 Methodology, Data Collection & Analysis

The research methodology was based on the 'Value Network Research Tool' developed by Farm Concern International, a hybrid research tool based on ten pillars that aims to shift focus from a conventional value chain analysis or market research to a multi-portfolio analysis of a dynamic economy for the purpose of identifying market hubs as well as analysis of opportunities and challenges.

Both primary and secondary data was used in this study. Quantitative and qualitative data was gathered using a structured survey which was conducted using a questionnaire. Other methods employed included focus group discussions, observation, ethnography, videography & photography and engaging key informants. Data was analyzed using a statistical program for social science (SPSS). Data analysis involved descriptive statistics such as frequencies, cross-tabulations and averages. Monitoring and evaluation was done by reviewing the plan, the work and achievements made vis-à-vis the targets as per the plan.

Sampling of the databases was done using systematic sampling which relies on arranging the target population according to some ordering scheme and then selecting elements at regular intervals through that ordered list. Systematic sampling involves a random start and then proceeds with the selection of every kth element from then onwards. In this case,  $k = (\text{population size} / \text{sample size})$ . We deduced a sample of 300 Mt. Kenya Region and 255 from Jinja Region. In Kenya we had a database of 10,128 registered farmers and in Busia we had a database of 3,187 in Jinja Region and 2,000 in Bushenyi Farmers. The targets for farmers to work with for this project were 10,000 and 5,000 respectively. In Uganda the project was implemented in Bushenyi initially which is best for green produce agriculture so storage was not key in this area as they focus on selling green maize the project was then shifted to Jinja Region where it was more appropriate as the farmers stored more quantities compared to Bushenyi though post harvest management skills were still transferred to the farmers in Bushenyi. The excerpts of the database are illustrated below.

Figure 1 Mt. Kenya Database Excerpt 1



Ques No	First Name	Last Name	ID/Voters NI	Address	Telephone Number	Year of Birth	Gender (M/F)	Marital Status	Head of household
1	Daina	Kagwiria	2388767	58 Kanyakine		1986	Female	Married	Male
2	Alice	Andrew	8827926	58 Kanyakine		1958	Female	Married	Male
3	Josphat	Marete	13360211	11	0716193458	1974	Male	Married	Male
4	Purity	Isaac	27322128	58 Kanyakine	0116618197	1979	Female	Married	Male
5	Benson	Mwiti	27187939	11	0712434278	1986	Male	Married	Male
6	George	Magambo	8881717	78	0713580472	1965	Male	Married	Male
7	Simon	Kaburu	2424030	613 Meru		1975	Male	Married	Male
8	Geoffrey	Muriithi	28980030	41 Kanyakine		1990	Male	Married	Male
9	Consolata	Ncooro		41 Kanyakine		1964	Female	Married	
10	David	Kirimi	20363457	41 Kanyakine	0710683927	1976	Male	Married	Female
11	Mercy	Julius	33066675	41 Kanyakine		1953	Female	Married	Female
12	Rose	Nzoverio	7713893	41 Kanyakine	0720061937	1956	Female	Married	Female
13	Geoffrey	Mwamba	2693355	41 Kanyakine	0718681247	1974	Male	Married	Male
14	Rose	Silas	12692672	41 Kanyakine	0714721720	1970	Female	Married	Female
15	Patrick	Mbae	2439013	41 Kanyakine			Male	Married	Male
16	Juliano	Mutwiri	2523717	66 Kanyakine		1959	Male	Married	Male
17	Francis	Kirima	9295436	12 Kanyakine	0727812561	1965	Male	Married	Male
18	Cicilia	Cuka	8306176	41 Kanyakine		1944	Female	Married	Male

Source: Farm Concern International, 2011

Figure 2 Mt. Kenya Database Excerpt 2

Ques No	Head of household	No Children - Male	No of Children - Female	District	Division	Location	Village	Farm Size/Ac	Name of group
1	Male	1	0	Imenti South	Abogeta	Kiringa	Kirima	1.5	Gaichungi SH Gro
2	Male	7	2	Imenti South	Abogeta	Kiringa	Kirima	3	Gaichungi SH Gro
3	Male	1	2	Imenti South	Igonji	Gikui	Ntue	1.5	Ntue Muguna We
4	Male	2	1	Imenti South	Abogeta	Kiringa	Kirima	3	Gaichungi SH Gro
5	Male	0	2	Imenti South	Igonji	Gikui	Ntue	1	Ntue Muguna We
6	Male	2	1	Imenti South	Igonji	Gikui	Ntue	1.75	Ntue Muguna We
7	Male	6	0	Imenti South	Abogeta	Kiringa	Ntonga	3	Imani CBO
8	Male	1	0	Imenti South	Abogeta	Kiringa	Kiringa	1.5	Imani CBO
9	Male	4	2	Imenti South	Abogeta East	Kiringa	Kiringa	1	Imani CBO
10	Female	2	0	Imenti South	Abogeta East	Kiringa	Kiringa	1	Imani CBO
11	Female	3	2	Imenti South	Abogeta East	Kiringa	Kiringa	2	Imani CBO
12	Female	3	3	Imenti South	Abogeta East	Kiringa	Kiringa	2	Imani CBO
13	Male	2	2	Imenti South	Abogeta East	Kiringa	Kiringa	1	Imani CBO
14	Female	1	5	Imenti South	Abogeta East	Kiringa	Kithutu	2	Imani CBO
15	Male	4	2	Imenti South	Abogeta East	Kiringa	Kaboya	3	Imani CBO
16	Male	2	4	Imenti South	Abogeta East	Kiringa	Kaboya	15	Imani CBO
17	Male	3	3	Imenti South	Abogeta East	Kiringa	Gitilimbwa	25	Imani CBO
18	Male	5	4	Imenti South	Abogeta East	Kiringa	Ntonga	7	Imani CBO

Source: Farm Concern International, 2011

Figure 3 Jinja Region Database Excerpt 4

Do You grow- Ground nuts?	What Varieties4 (i)	How many Kgs?4 (i)	How much Acreage?4 (i)	What Varieties4 (ii)	How many Kgs?4 (ii)	How much Acreage?4 (ii)	What Varieties4 (iii)	How many Kgs?4 (iii)
Yes	Red Beauty	0	0	Sere Nuts	0	0	Egola	0
Yes	Red Beauty	50	0		0	0		0
Yes	Red Beauty	30	0		0	0		0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	White	0
Yes	Kanyembwa	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Red Beauty	0	0	Egola	0	0	Sere Nuts	0
Yes	Kanyembwa	0	0	Sere Nuts	0	0	Egola	0
Yes	Kanyembwa	0	0	Sere Nuts	0	0	Egola	0
Yes	Kanyembwa	0	0	Sere Nuts	0	0	Egola	0

Source: Farm Concern International, 2011

## 4.0 Findings

### 4.1. Commercial Village Model

The highest percentage of the Africa's poor live in rural areas, predominantly in village settings. While extensive similarities between households within the same villages, there usually are small number of households with higher access to resources than the "average" household. The "better-off" households are more likely to be attracted to new technologies or commercialization opportunities. To ensure that outreach efforts in commercialization and marketing reach and

benefit significantly more households than the "better-off", FCI has developed the 'Commercial Villages Model' (CVM) in Sub Saharan Africa.



The Commercial Village Model is focused on the market led approach

The Commercial Village Model is focused on the market led approach i.e. instead of producing what the farmers normally produce, production is informed by opportunity and situation analysis by checking the crops that do well in the said market and matching this with what the market needs. This has evolved from the traditional villages to commercial villages that feed the rural urban population. The shift from traditional agrarian methods of agriculture to commercialization while still maintaining the importance of food security presents the

farmers with a competitive advantage for the poor communities resulting in increased incomes and better livelihoods.

The opportunities that can be taken advantage of by the farmers are product bulking, collective quality control and achievement of economies of scale. This has a multiplier effect by increasing their attractiveness to the private sector, creating market competitiveness for poor households as Commercial Villages are evolved into **Economic Trading Blocs**. Commercialization, market access and cash flow from sales has increased rural purchasing power gradually attracting investments by formal & informal private players e.g. input outlets, transport services, internet services, FMCG outlets etc.

Commercial Villages (CVs) are designed to increase the village cash economy through commercialization of crops and further enhance household food security. Three pillars form the foundation that assures the stability of commercial villages' i.e.

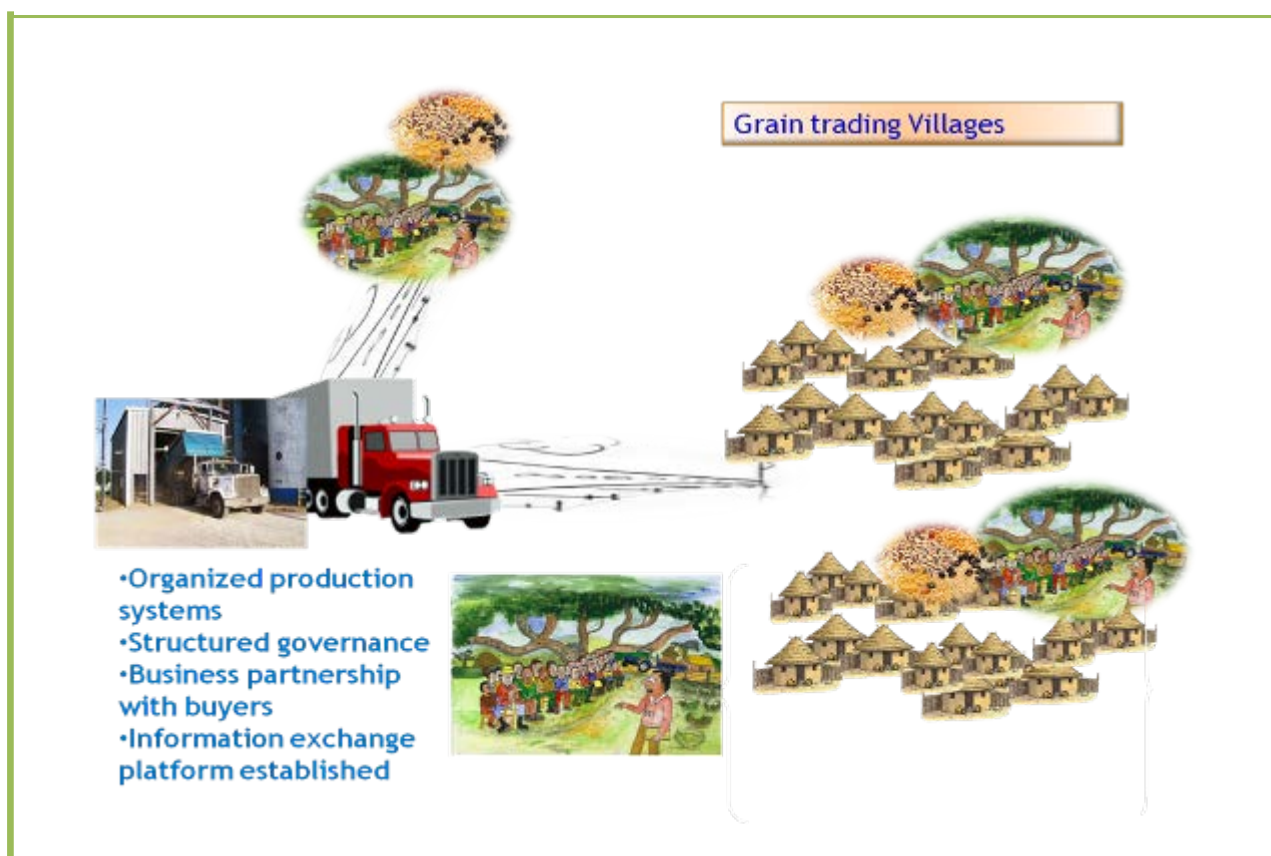
- Villages dedicate a percentage of land to be developed for commercial crops. The approach has two levels to cater for land jointly owned by communities and for villages with clear individual land-ownership policies.
- Commercialization is driven by the market-led approach (find out what the consumer/buyers want and respond to their needs) as opposed to production-oriented approach (produce a surplus of what one grows and then locate markets in which to sell it).
- Equity across households and gender considerations.

Smallholders' participation in the marketplace has largely been hindered by; Lack of capacity to achieve significant volumes of farm or non-farm produce, Inconsistent supply to the markets, Lack of cost effective logistics in out-sourcing due to scattered farmer groups with each producer group too small to achieve significant quantities on its own e.g. a producer group of 20 farmers will be approximately 20 kilometres away from another group resulting in very high bulking transaction costs as well as lack of economies of scale drastically reduce the voice and bargaining power of farmers in the marketplace. smallholders, the Commercial Villages Model is aimed at

To address the challenges in procurement processes based on; supporting village commercialization based on Identified markets, building capacity of business alliance and business partnership at village level, Equipping villages to harmonize priority products based on market demand for mainly domestic and regional markets. This can be illustrated in the pictorial below also included herein are the roles and responsibilities summary of the committees tasks and responsibilities as well as the levels are highlighted below

Smallholders' participation in the marketplace has largely been hindered by; **Lack of capacity to achieve significant volumes of farm or non-farm produce,** **Inconsistent supply to the markets,** **Lack of cost effective logistics** in out-sourcing due to scattered farmer groups with each producer group too small to achieve significant quantities on its own.

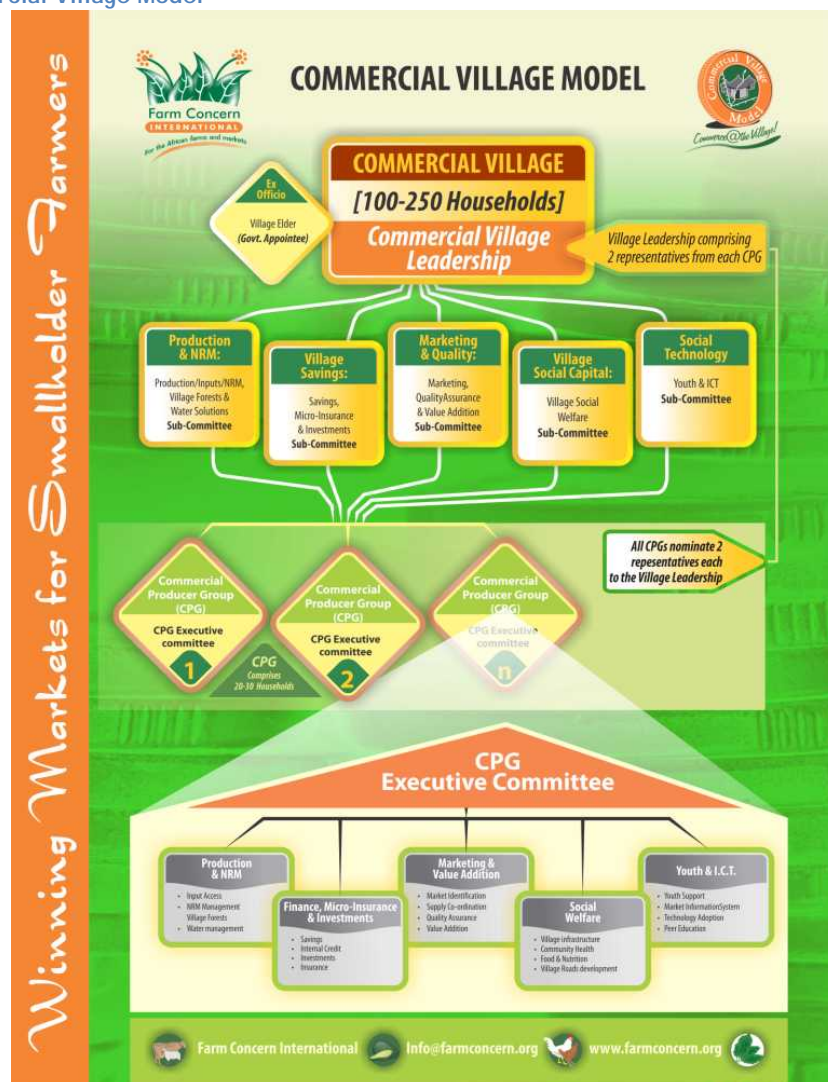
Figure 4 Organized & Efficient Agricultural Trading



Source: Farm Concern International, 2011

The resulting benefits are that the farmers have efficient production systems that are synchronized to ensure that farming activities are orderly and systematic with a linkage to several potential buyers at the end of the production cycle. They are also able to keep each other accountable and provide support systems to each other. They are able to enjoy economies of scale in different aspects such as input sourcing, transport and transaction costs. The commercial village model enhances productivity, enable farmers enjoy economies of scale and results in increased revenues as a result of direct linkages to buyers thereby avoiding brokers, reduced input and other costs resulting to increased incomes and therefore better livelihoods. A case in point is Lydia Gitonga from Ntakani CPG (Commercial Producer Group) who after storing her produce selling at a profit, she managed to buy a grade cow which now gives her milk which she sells to a local academy in the area. The cow has since given birth to two calves which she hopes to sell in future and get more income this is captured in the focus group discussion held.

Figure 5 The Commercial Village Model



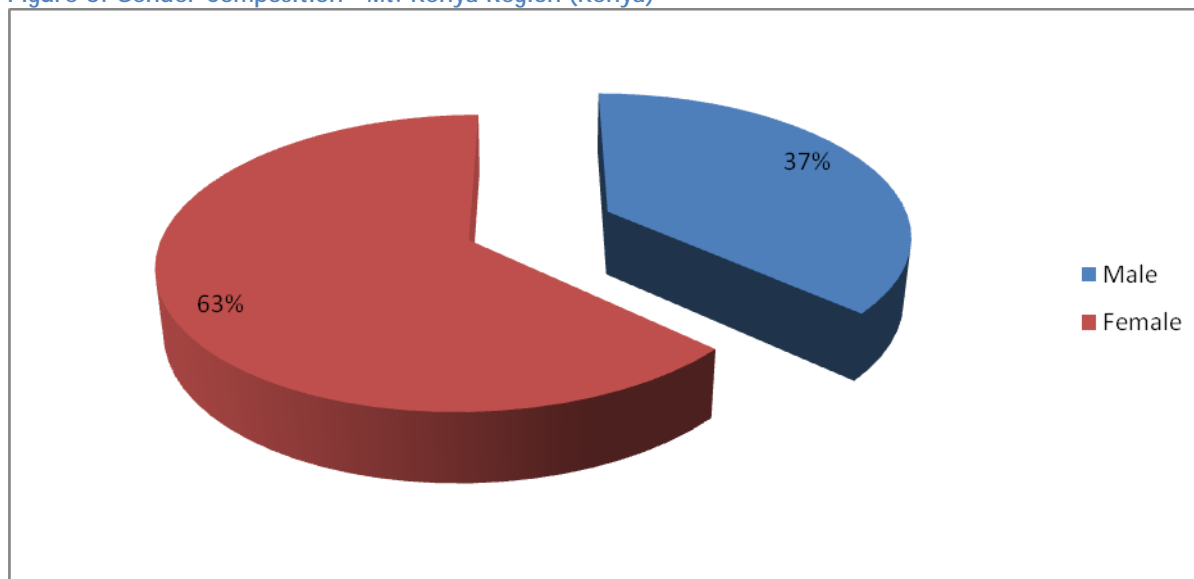
Source: Farm Concern International, 2011

## 4.2. Kenya

### 4.2.1. Demographic Characteristics

#### 4.2.1.1. Gender & Youth Disaggregation

Figure 6: Gender Composition - Mt. Kenya Region (Kenya)



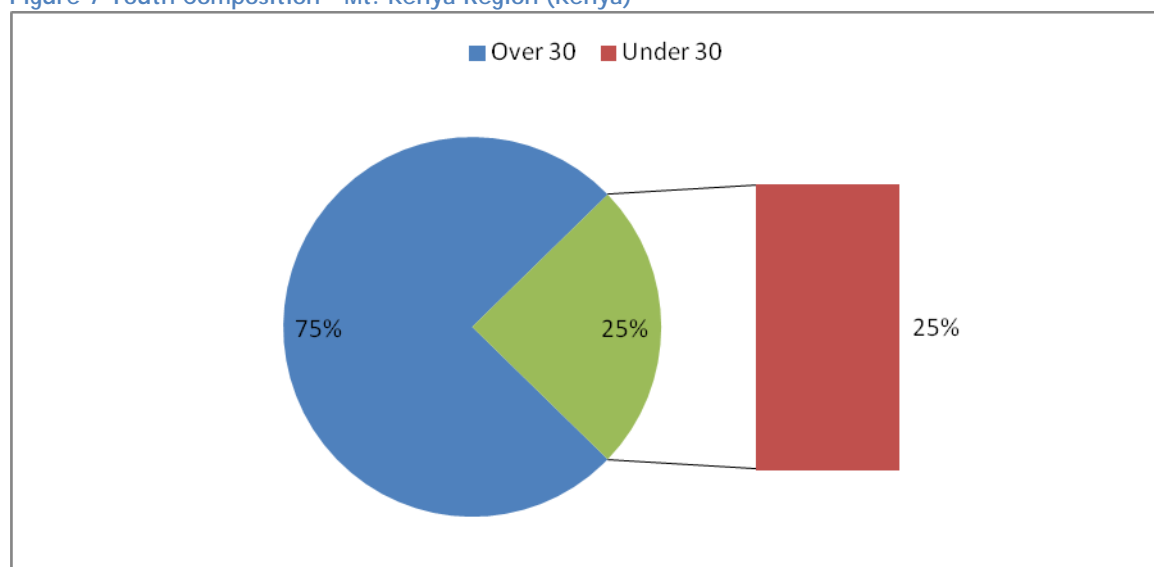
Source: Farm Concern International, 2011

The farmers registered are composed of 37% male and 63% female. The women are very positive of the project because of the opportunity to improve their livelihoods a larger proportion participated compared to their male counterparts. This meets the objective of the project that seeks to work with more than 50% of the registered farmers being female. Also in the demographic classification was the youth percentage in the project. The target was to work with at least 20% of the total being individuals below 30 years. The percentage of the respondents who are under the youth category was 25% as indicated in the pie chart below. This is commendable and should be encouraged as agriculture is shunned by the youth and is seen as a blue collar job. The benefits of agriculture should be promoted and the youth encouraged as the average farmer in Kenya is over 70 years of age.

Youth Participation in Kenya: **25%.**

Number of participating farmers in Kenya: **37% Men and 63% Women.**

Figure 7 Youth Composition - Mt. Kenya Region (Kenya)



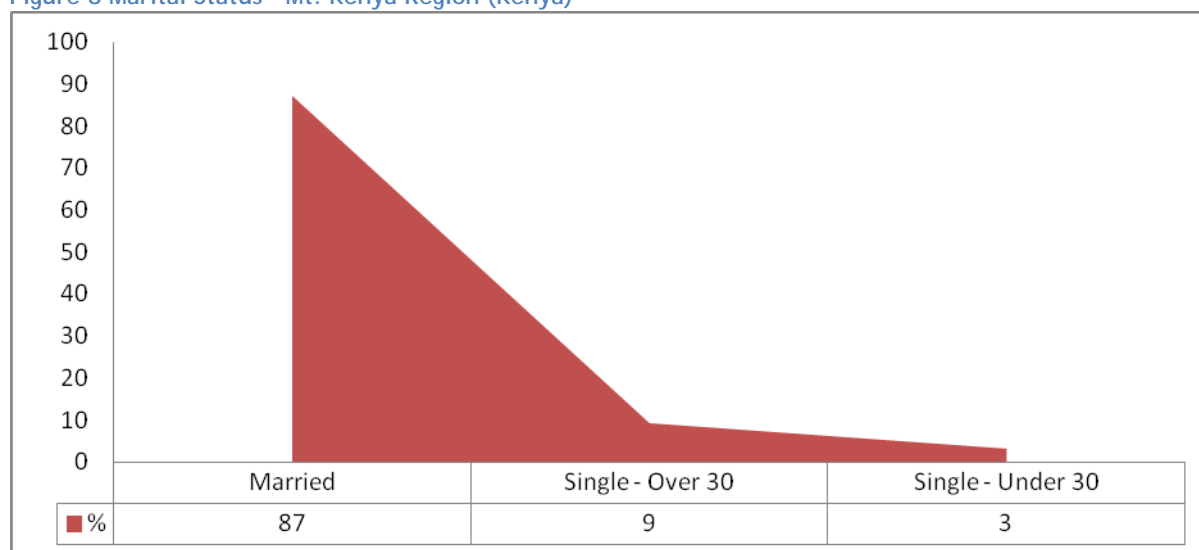
Source: Farm Concern International, 2011

### 4.2.2. Regional & Gender Distribution

Both the male and female counterparts had good representation in the region, in the various districts in Kenya this enables the project to have a wider reach and equitable representation in the project and therefore form comparison in terms of comparisons derivation of results as well as the impact.

### 4.2.3. Household Dynamics & Farm Size

Figure 8 Marital Status - Mt. Kenya Region (Kenya)

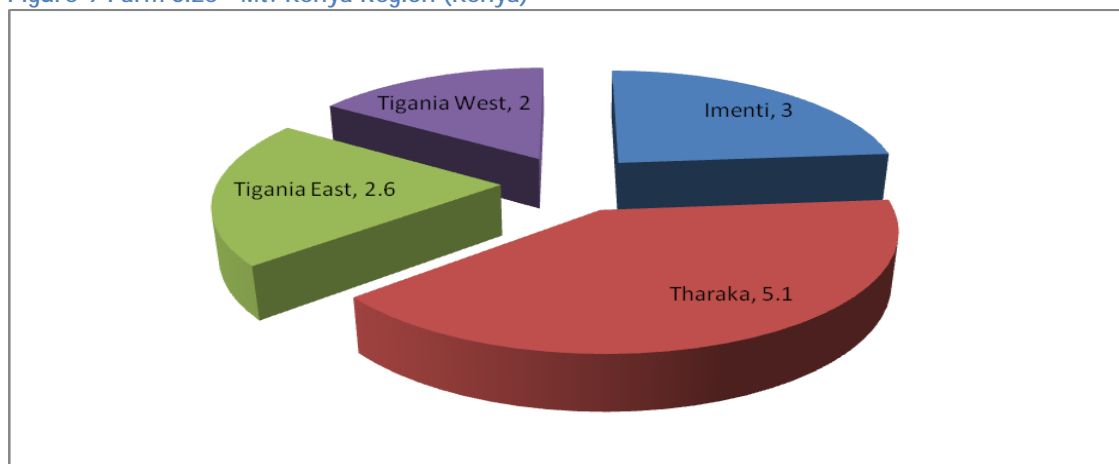


Source: Farm Concern International, 2011

The married population forms the largest percentage in the region (87%) with the rest being the singles with a small percentage (12%) this is because Africans generally value marriage they also have an average of four (4) children per household. In terms of farm size the average acreage is

3.24 acres with Tharaka having the largest average farm size at 5.1 acres followed by Imenti, Tigania east and Tigania west at 3 acres, 2.6 acres and 2 acres respectively

Figure 9 Farm Size - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

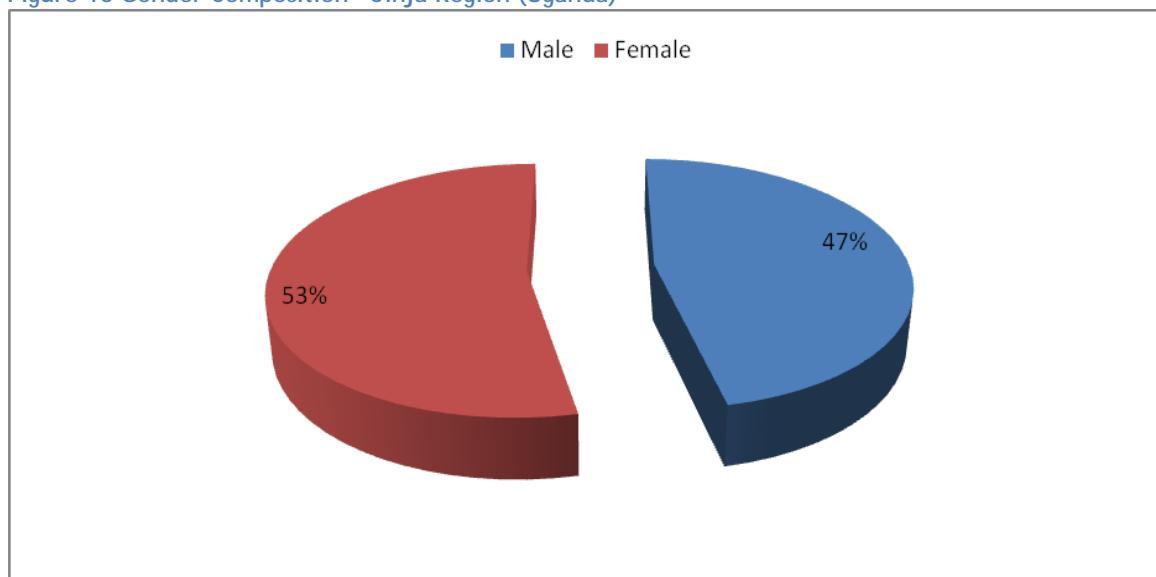
Majority of the farmers belong to one group or another in Mt. Kenya Region however these are usually social groups or 'merry go rounds' where farmers make contributions in the group and get the lump sum amount of total contributions in turns they can also borrow from these groups. However the groups are not geared towards commercialization of agricultural produce.

### 4.3. Uganda

#### 4.3.1. Demographic Characteristics

##### 4.3.1.1. Gender & Youth Disaggregation

Figure 10 Gender Composition - Jinja Region (Uganda)



Source: Farm Concern International, 2011

The farmers registered are composed of 47% male and 53% female. The women are very positive of the project because of the opportunity to improve their livelihoods a larger proportion participated compared to their male counterparts. This meets the objective of the project that seeks to work with more than 50% of the registered farmers being female. Also in the demographic classification was the

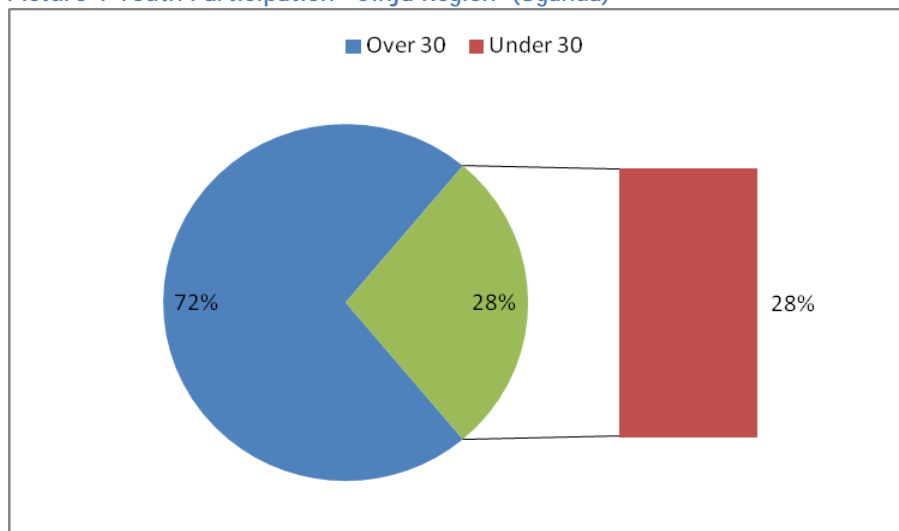
Youth  
Participation in  
Kenya: **28%.**

youth percentage in the project. The target was to work with at least 20% of the total being individuals below 30 years. The percentage of the respondents who are under the youth category are 28% as

Number of  
participating  
farmers in Uganda:  
**47% Men and  
53% Women**

indicated in the pie chart below. This is commendable and should be encouraged as agriculture is shunned by the youth and is seen as a blue collar job. The benefits of agriculture should be promoted and the youth encouraged participating and incorporating modern technology.

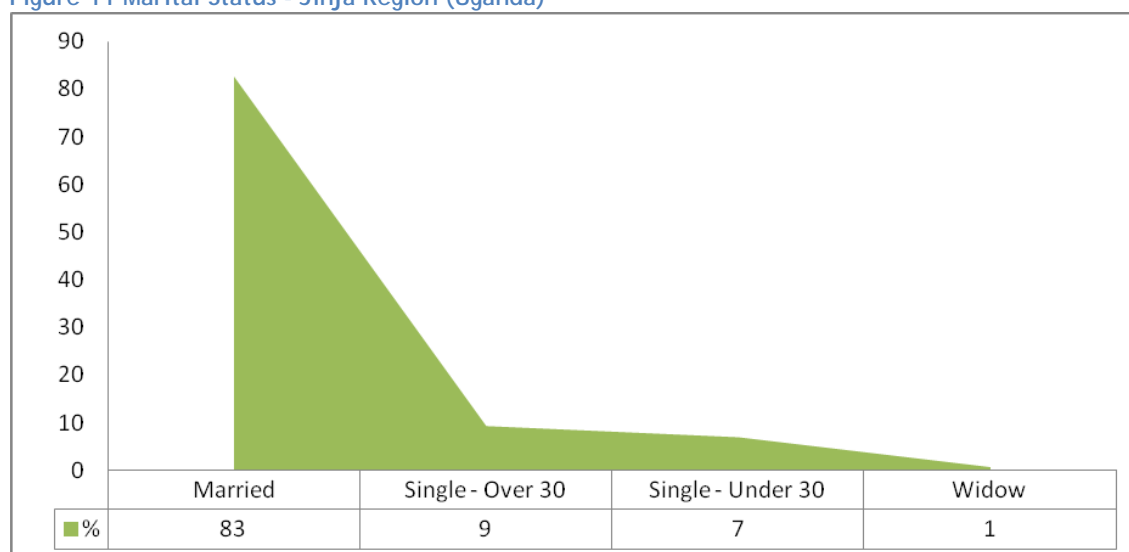
Picture 1 Youth Participation - Jinja Region (Uganda)



Source: Farm Concern International, 2011

### 4.3.2. Household Dynamics & Farm Size

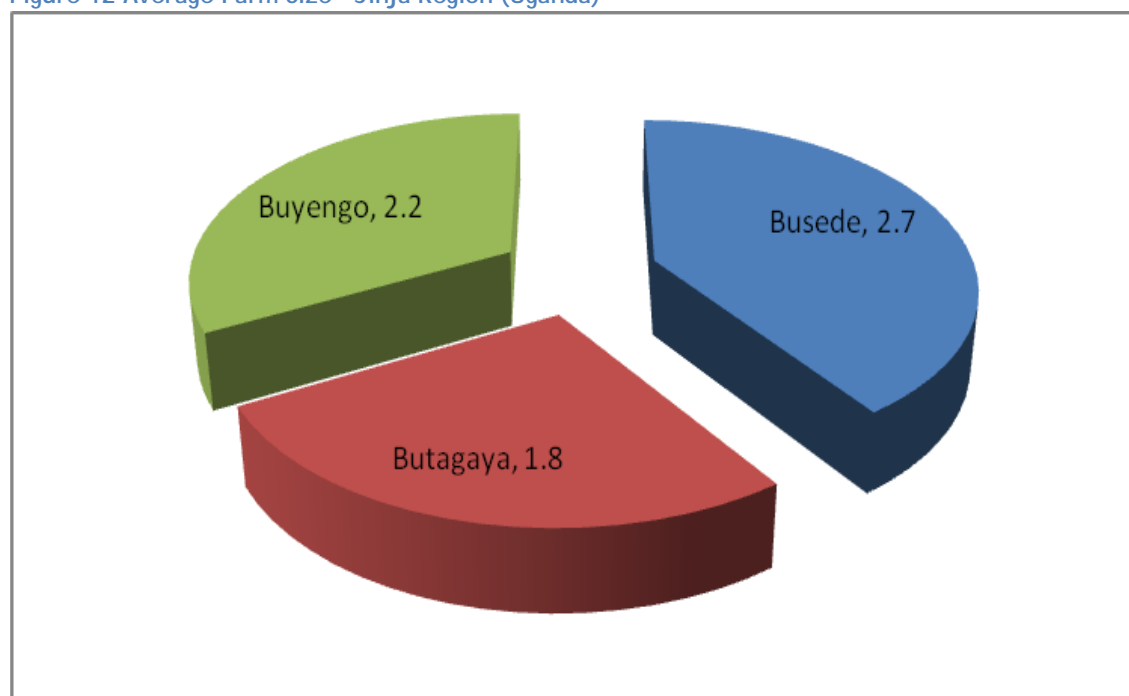
Figure 11 Marital Status - Jinja Region (Uganda)



Source: Farm Concern International, 2011

The married population forms the largest percentage in the region (83%) with the rest being the singles and widows respectively at 16% and 1%. This is because Africans generally value marriage they also have an average of six (6) children per household, 85% of these are male headed households. In terms of farm size the average acreage is 2.2 acres in the proportions shown in the diagram below with Busede at 2.7 acres, Buyengo at 2.2 acres and Butagaya at 1.8 acres.

Figure 12 Average Farm Size - Jinja Region (Uganda)



Source: Farm Concern International, 2011

Majority of the farmers in the region as well belong to a group however these are usually social groups or 'merry go rounds' where farmers make contributions in the group and get the lump sum amount of total contributions in turns they can also borrow from these groups. However the groups are not geared towards commercialization of agricultural produce.

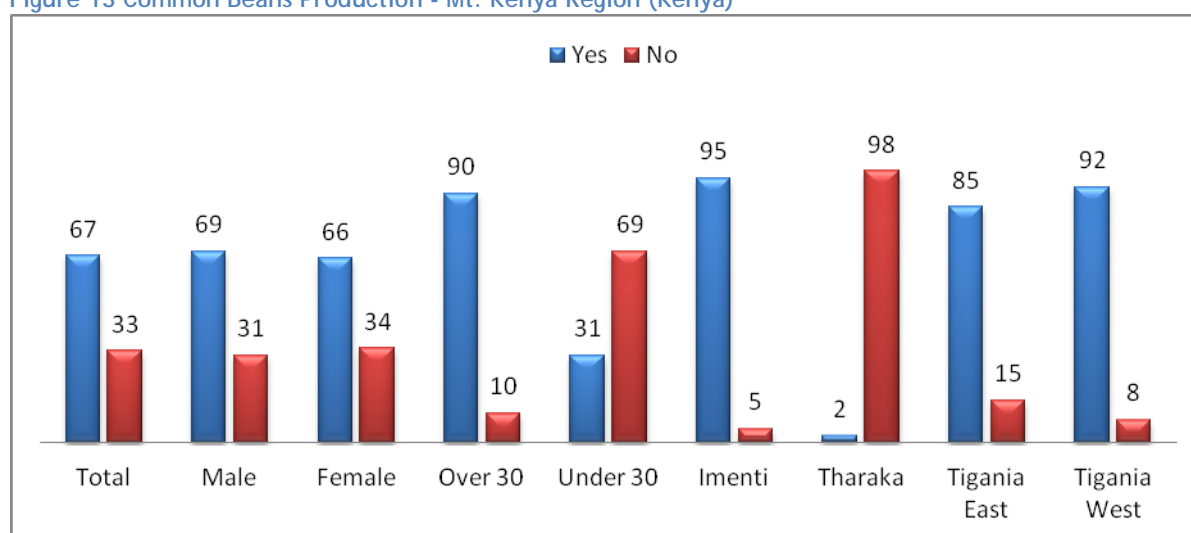
#### 4.4.Commodities Produced - Kenya

##### 4.4.1. Common Beans

Common beans are grown by 67% (6,786 of 10,128) of the farmers registered whilst 33% (3,342 of 10,128) do not grow the produce. Of those growing the commodity the composition is 69% for the male population and 66% of the female population meaning that gender is not a key factor of consideration when growing the crop.

Common beans in Kenya grown by **67% of residents in Mt Kenya Region**

Figure 13 Common Beans Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

A larger percentage of adults i.e. those over 30 grow the commodity (90%) and only 31% of the youth (30 years and below) population grows the commodity. Across the four regions over 85% of the population grows the commodity but only 2% of those in Tharaka produce common beans this could be caused by the fact that Tharaka is a dry area and common beans do not do well in the area.

Table 1: Common Beans Varieties Grown and Estimated Value - Mt. Kenya Region (Kenya)

Varieties	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price in Kshs Year 1 (2009/2010)	Total Annual Value in Kshs (Year 1)	Average Price Year 2 (2010/2011)	Total Annual Value in Kshs (Year 2)
Muchui	47	98	256	0.76	336	4	7	4,426	3,241,696	5,052	3,700,191
Mutuku	29	60	178	0.71	251	3	6	4,679	1,563,621	5,779	1,931,217
Mwitmania	3	6	733	1.00	733	8	16	4,331	423,474	5,282	516,460
Wairimu	9	18	212	0.67	316	4	7	4,679	591,286	5,052	638,422
Gacere	3	6	115	0.23	500	6	11	4,245	283,000	5,052	336,800
Rose Coco	4	9	514	1.19	432	5	10	4,600	397,687	5,671	490,279
Not Known	6	13	0	0.00	0	0	0	4,245	-		-
	100	210									
	7090	No. of farmers registered in year 1; 70% of 10128 - 7090					Year 1	67% of 313=210	6,500,763	Year 2	7,613,369
							Year 1	67% of 7090=4750	147,041,074	Year 2	246,020,595
						USD Dollar	Year 1 - See Appendices	77.4	1,899,755.48		
							Year 2 - See Appendices	85.9	2,864,034.86		
								Summary	Total Value in Kshs		393,061,669
									Total Value in USD		4,763,790

Source: Farm Concern International, 2011

The most common variety grown in the region is Muchui 47%, Mutuku 29% and Wairimu at 9%. Mwitemania grown by only 3% of the farmers yield the most at 733 Kilos per acre (8 bags) compared to the most commonly grown variety at 47% which yields 256 Kilos per acre. The reason behind this could be as a result of low yields due to poor agricultural practices or lack of information of the higher yielding variety as well as low demand for the Mwitemania variety. These and other factors need to be looked into in the next stage of the project. The common beans have a significant market share with the value for year 1 estimated at USD 1,899,755 (KSh147,041,074) and year 2 estimated at USD 2,864,035 (KSh 246,020,595). The total estimate for the two years can be summed to USD 4,763,790 (Kshs 393,061,669)

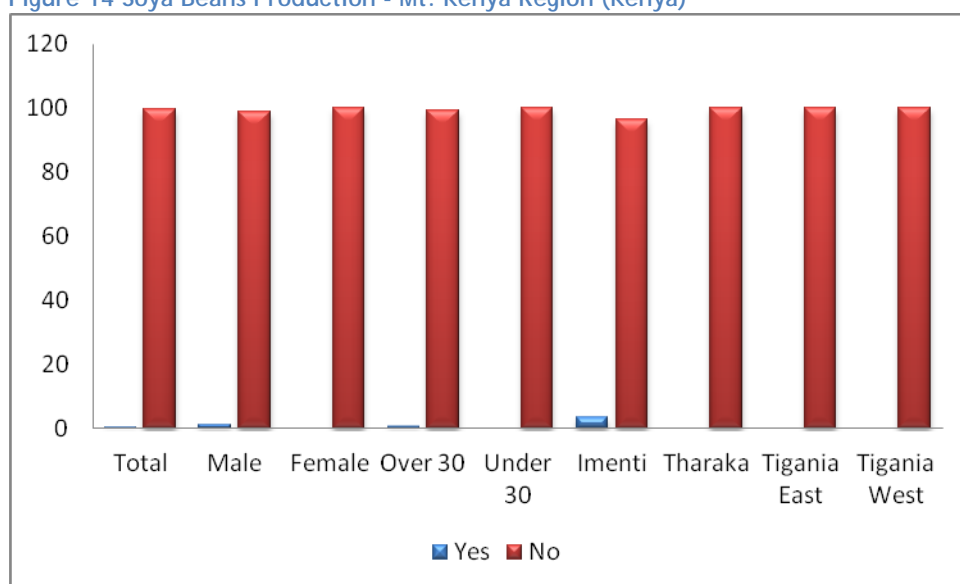
Most common variety **Muchui 47%, Mutuku 29% & Wairimu 9% in Mt Kenya Region**

#### 4.4.2. Soya Beans

In the Mt. Kenya region 99% (10,027 of 10,128) and above i.e. pretty much the whole population does not grow soya beans it is one of the least grown commodity in the region. This could be because there are no linkages to markets for this crop. This is a crop that is highly demanded with the country importing at least 80% of the soya beans used by the processors. Soya beans can be grown in this region. Only 1% (101 of 10,128) of the total registered grows the commodity and these are located in Imenti.

**99% of Mt Kenya Residents do not grow Soya.**

Figure 14 Soya Beans Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

The farmers growing Soya are not informed in terms of the variety that they grow in Imenti and this could be a major challenge as they might be growing a variety that does not do well in the region. With linkages and training provided by farm concern emphasis should be put on this product to increase production as the Kenya market generally imports the commodity. The total estimated value of Soya from this region can be valued at USD 230,240 (KSh 18,920,000) for the two years.

Table 2 Soya Beans Production and Analysis - Mt. Kenya Region (Kenya)

Variety	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
Not Known	3	250	0.25	1000	11	22	4950	330,000	4950	330000
						Year 1	1% of 313=3	330,000	Year 2	330000
		7090	No. of farmers registered in year 1; 70% of 10128 - 7090							
						Year 1	1% of 7090=71	7,810,000		11,110,000
					USD Dollar	Year 1 - See Appendices	77.4	100,904.39		
						Year 2 - See Appendices	85.9	129,336.44		
							Summary	Total Value in Kshs		18,920,000
								Total Value in USD		230,240.83

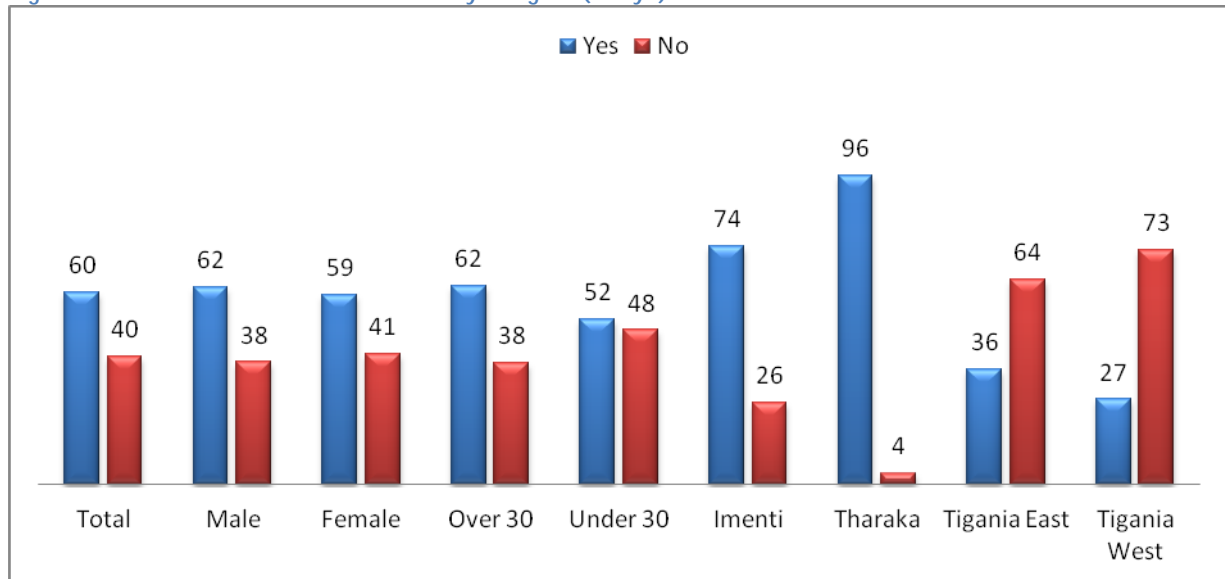
Source: Farm Concern International, 2011

#### 4.4.3. Cow Peas

About 60% (6,077 of 10,128) of the registered farmers grow cow peas in Mt. Kenya Region. Gender has no impact over who grows the cow peas. 62% of those producing cow peas are over 30 years and 52% of the youth population produces the commodity. Tharaka and Imenti are the leading producers of cow peas in that order at 96% and 74% respectively whilst Tigania east and west producers have a low proportion growing the commodity.

Cow Peas grown by  
**60% of residents  
in Mt Kenya  
Region**

Figure 15 Cow Peas Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

Most of the farmers i.e. 60% are not aware of the variety they plant while 22% use Ndumbulu variety. There is a need to enlighten the farmers on the type of varieties that work well for the region. The average size apportioned for cow peas is approximately one acre and the average yield per acre is 415 Kilograms per Kilo. Meru has the highest yield at 733 Kilos and those who don't know (60%) also had the second highest yield at 514 Kilos. The total estimated value of Cow peas from this region can be valued at USD 6,175,980 (KSh. 509,662,185) for the two years.

**Most farmers 60% are  
not aware of the  
variety they plant.  
22% plant the  
Ndumbulu variety.**

Table 3 Cow Peas Production &amp; Analysis - Mt. Kenya Region (Kenya)

Variety	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year (2009/2010)	Price 1	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
Katamani	8	15	169	0.66	256	3	6	4778		407,819	5632	480,711
Kendi	2	4	178	0.71	251	3	6	4778		106,447	5632	125,473
Meru	3	6	733	1.00	733	8	16	4778		467,180	5632	550,682
Ndumbulu	12	22	212	0.67	316	4	7	4778		737,974	5632	869,876
Range	15	28	115	0.23	500	6	11	4778		1,486,489	5632	1,752,178
Not Known	60	113	514	1.19	432	5	10	4778		5,186,401	5632	6,113,397
Averages			320	1	415	5	9	4778				
Totals	100	188	1921.35	4.46	2488.2187	27.64687						
							Year 1	60% of 313 = 188		8,392,310	Year 2	9,892,316
	7090	No. of farmers registered in year 1; 70% of 10128 - 7090					Year 1	60% of 7,090 =4,254		189,898,323	Year 2 = 60% of 10,128=6,077	319,763,862
						USD Dollar	Year 1 - See Appendices	77.4		2,453,466.70		
							Year 2 - See Appendices	85.9		3,722,512.94		
								Summary		Total Value in Kshs		509,662,184
										Total Value in USD		6,175,979.64

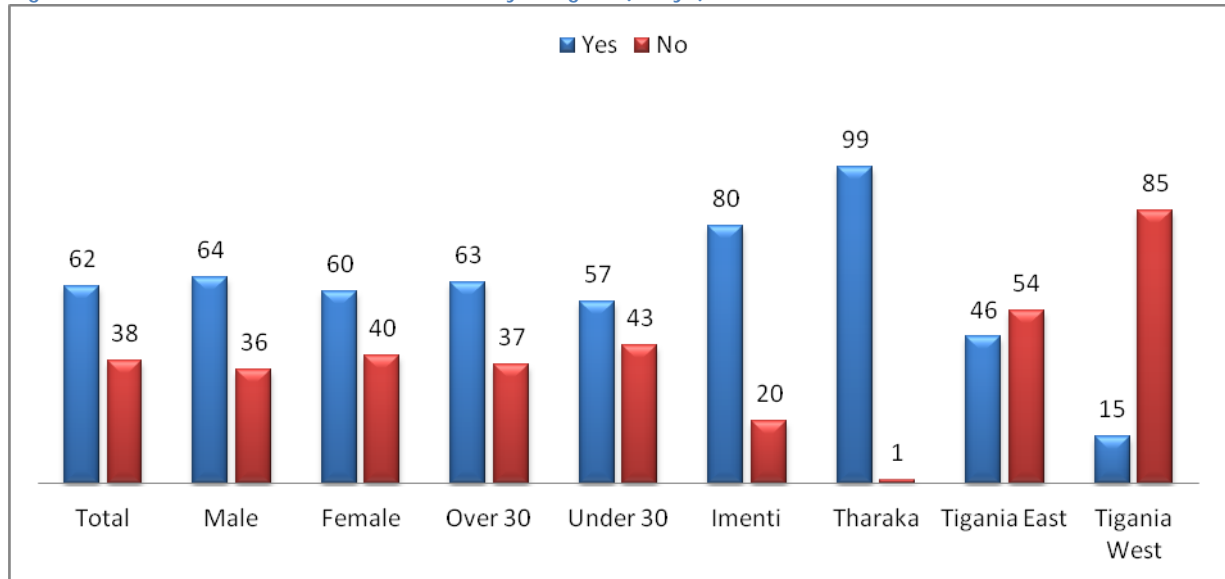
Source: Farm Concern International, 2011

#### 4.4.4. Green Grams

The production of green grams in Mt. Kenya Region is done by 62% (6,280 Of 10,128) of the farmers. Green grams production is one of those commodities that cut through gender and age. However in the four regions Imenti at 80% and Tharaka 99% take a leading role in production whilst Tigania east and west are on the tail end in that order at 46% and 15% respectively.

Green grams in Kenya are grown by **62% of residents in Mt Kenya Region**

Figure 16 Green Grams Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

A majority of the producers of green grams fall in the category that use the variety known as Nylon (45%) and another 45% are not aware of the type of variety they grow the other varieties grown are local 6% and Kiraka 3%. Nylon is chosen because of its high yield at 442 Kilos per acre. Red also had a high yield of 360 Kilos followed by the variety Local at 272 Kilos. The figures provided need to be cross examined with the yield supposed to be provided by the varieties to ascertain the best yielding variety for the region. The total estimated value of green grams from this region can be valued at USD 5,884,562 (Ksh 486,195,403) for the two years. This is further explained in the table below

The estimated total value of green grams produced in this region is valued at **USD 5,884,562 (Ksh 486,195,403)**

Table 4 Green Grams Production and Analysis in Mt. Kenya Region (Kenya)

Variety	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value	Average Price Year 2 (2009/2010)	Total Value
Kamweri	1	1	60	0.25	240	3	5	7049	37,595	8724	46,528
Kiraka	3	5	74	0.50	148	2	3	7049	115,917	8724	143,461
Local	6	12	245	0.90	272	3	6	7049	511,705	8724	633,298
Nylon	45	87	751	1.70	442	5	10	7049	6,020,399	8724	7,450,980
Red	1	1	180	0.50	360	4	8	7049	56,392	8724	69,792
White	1	1	80	0.30	267	3	6	7049	41,772	8724	51,698
Don't Know	45	86	0	0.00	0	0	0	7049	-	8724	-
Averages			199	1	247	3	5		969,111.35		1,199,393.87
Totals	100	193									
							Year 1	62% of 313=194	7,752,891	Year 2	9,595,151
		7090	No. of farmers registered in year 1; 70% of 10128 - 7090					62% of 7090=4395	175,638,944	Year 2 (10,128 *62%=6,279	310,556,459
						USD Dollar	Year 1 - See Appendices	77.4	2,269,237.00		
							Year 2 - See Appendices	85.9	3,615,325.49		
								Summary	Total Value in Kshs		486,195,403
									Total Value in USD		5,884,562

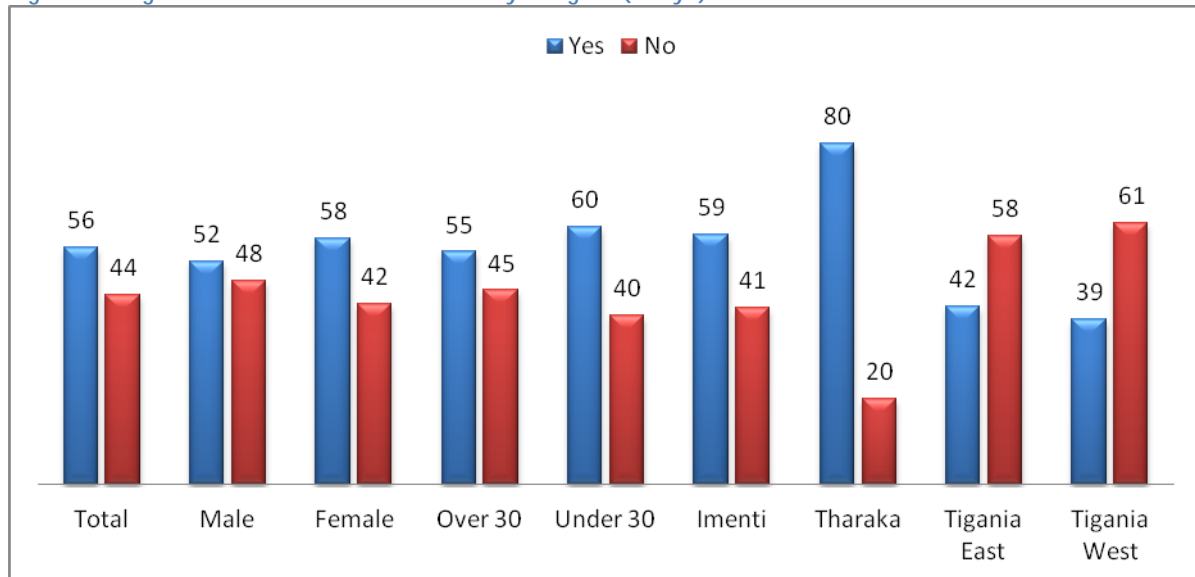
Source: Farm Concern International, 2011

#### 4.4.5. Pigeon Peas

Pigeon peas are grown by 56% (5,672 of 10,128) of the population in this region. The leading area in pigeon peas production is Tharaka followed by Imenti. Pigeon peas production cuts across gender and age in terms of production. The lowest producers of pigeon peas just like cow peas and green grams are Tigania east and west. Pigeon peas production should be encouraged as it can do well in this areas an understanding derived from research and market studies needs to be done evaluate the reasons the crop is not produced.

Pigeon Peas grown by **56% of residents in Mt Kenya Region**

Figure 17 Pigeon Peas Production in Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

A majority i.e. 88% of the producers of pigeon peas are not aware of the variety they produce like the crops also mentioned above this could be because they grow this commodity in the region as a tradition and commonly refer to it by its name. The source of pigeon peas also needs to be looked into further in order to ensure that they are growing the best variety in the region. The average acreage apportioned to this crop is 1 acre. The other high yielding varieties are Local, Provend and Katumani. The total estimated value of Pigeon peas from this region can be valued at USD 5,300,790 (KSh 438,260,831) for the two years.

Total estimated value for the two years **USD 5,300,790 (KSh 438,260,831)**

Majority **88% of those producing pigeon peas NOT aware of Variety**

Table 5 Pigeon Peas Production &amp; Analysis Mt. Kenya Region (Kenya)

Varieties	%	Co unt	Averag e KG	Average Acreage	Averag e Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
Common	1	2	150	2.00	75	1	2	4950	16,500	6300	21,000
Improved	6	10	91	0.70	130	1	3	4950	143,000	6300	182,000
Katumani	7	13	136	0.50	272	3	6	4950	388,960	6300	495,040
Kendi	3	5	201	1.00	201	2	4	4950	110,550	6300	140,700
Kimeru	5	9	63	0.30	210	2	5	4950	207,900	6300	264,600
Local	9	16	440	1.20	367	4	8	4950	645,333	6300	821,333
Mukinde	2	3	66	1.00	66	1	1	4950	21,780	6300	27,720
Ndumbulu	14	24	324	1.50	216	2	5	4950	570,240	6300	725,760
Provend	1	2	90	0.25	360	4	8	4950	79,200	6300	100,800
Range	1	2	45	0.40	113	1	3	4950	24,750	6300	31,500
Don't Know	51	88	48	0.10	480	5	11	4950	4,646,400	6300	5,913,600
Averages			150	1	209	2	5	4950			
Totals	100	174									
							Year 1	56% of 313=175	6,854,613		8,724,053
	7090	No. of farmers registered in year 1; 70% of 10128 - 7090						56% of 7,090=3970	155,501,800	Year 2 56% of 10,128=5,672	282,759,031
			USD Dollar		Year 1 - See Appendices			77.4	2,009,067.18		
					Year 2 - See Appendices			85.9	3,291,723.30		
					Total In USD				5,300,790.48		
					Summary			Total Value in Ksh			438,260,831
									Total Value in USD		5,300,790

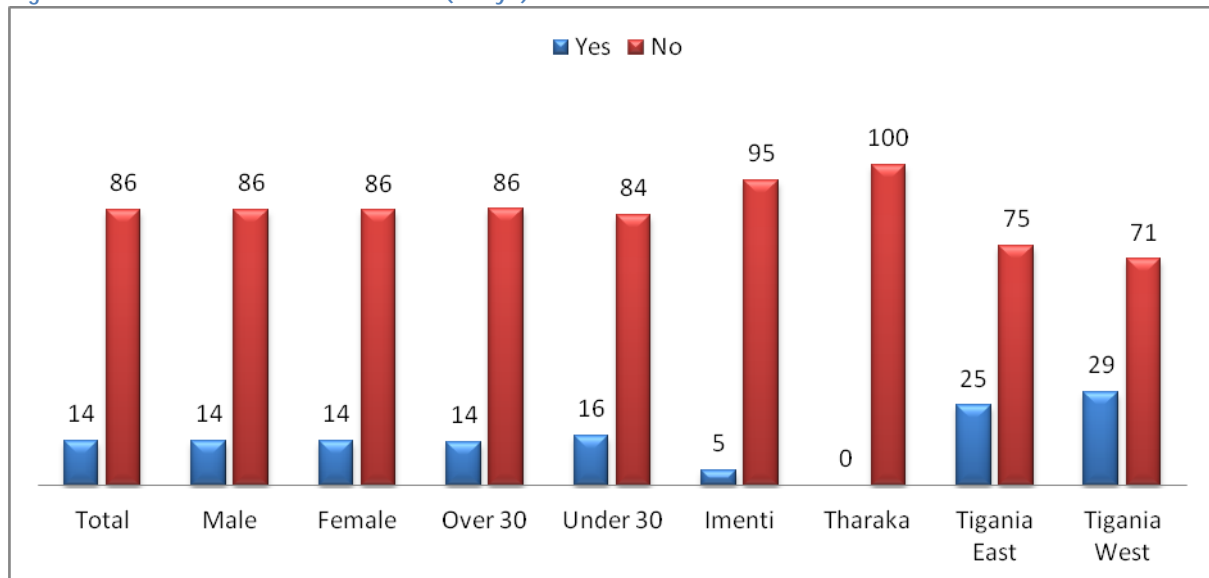
Source: Farm Concern International, 2011

#### 4.4.6. Dolichos

Dolichos are grown by 14% (1,418 of 10,128) of the farmers in the region while 86% (8,710 of 10,128) do not grow the produce. The commodity is grown by both genders in the region. It is mainly produced in Tigania west 29% and Tigania east 25%. It was noted that in Tharaka none of the farmers produced Dolichos and in Imenti only 5% of the region's farmers produce the commodity.

Dolichos grown by 14% of the farmers in Mt. Kenya Region.

Figure 18 Dolichos Production in Meru (Kenya)



Source: Farm Concern International, 2011

A significant number of the farmers i.e. 39% of the producers of Dolichos are not aware of the variety they this is a recurrent issue even with the other crops and awareness should be created on the varieties suitable for the climatic conditions. The average acreage apportioned to this crop is 0.49 acre. The high yielding varieties are Ncabi and Kimeru with 533 Kilos per acre and 409 Kilos per acre respectively. The total estimated value of Pigeon peas from this region can be valued at USD 1,976,660 (KSh 161,555,282) for the two years as highlighted in the table below.

The Estimated total value of Dolichos for the two years **USD 1,976,660 (Ksh 161,555,282)**

Table 6 Dolichos Production and Analysis in Mt. Kenya Region (Kenya) Maize

Varieties	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
Asate	2	1	90	0.25	360	4	8	8,160	65,280	6,587	52,696
Katamani	14	6	137	1.13	122	1	3	8,160	132,494	6,587	106,953
Improved	9	4	230	0.70	329	4	7	8,160	238,324	6,587	192,382
Kimeru	9	4	94	0.23	409	5	9	8,160	296,441	6,587	239,296
Local	23	10	182	0.62	294	3	7	8,160	532,301	6,587	429,690
Ncabi	5	2	200	0.38	533	6	12	8,160	193,422	6,587	156,136
Unknown	39	17	83	0.16	519	6	12	8,160	1,599,133	6,587	1,290,869
Averages			145	0.49	303	3	7		252,968		204,203
Totals	100	44									
							Year 1	86% of 313=269	3,310,363	Year 2	2,672,226
7090	No. of farmers registered in year 1; 70% of 10128 - 7090							86% of 7090=6097	75,030,797	86% of 10128	86,524,485
						USD Dollar	Year 1 - See Appendices	77.4	969,390.14		
							Year 2 - See Appendices	85.9	1,007,269.91		
						Total In USD			1,976,660.04		
								Summary	Total Value in Ksh		161,555,282
									Total Value in USD		1,976,660.04

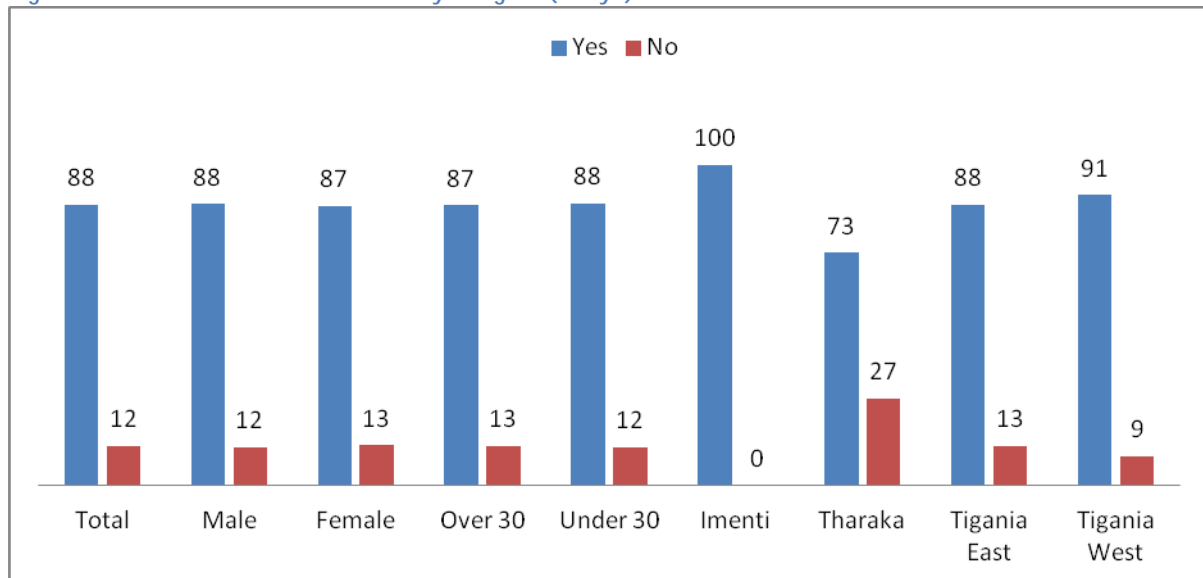
Source: Farm Concern International, 2011

#### 4.4.7. Maize

Maize is grown by 88% (8,913 of 10128) of the farmers in the region while only 12% do not grow the produce. The commodity is grown by both genders in the region as well as a vast majority of the youth. It is produced by the four districts with the leading being Imenti (100%, Tigania West (91%), Tigania East (88%) and Tharaka (73%) in that order. This commodity seems to be well produced in this region compared to the other cereals.

Maize is grown by **88% of the farmers in Mt. Kenya Region.**

Figure 19 Maize Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

A key highlight of this commodity is that only 3% of the farmers did not seem to know the variety they plant compared to other commodities this could be because maize has gone through the life cycle of introduction, growth in terms of production and maturity stage the other cereals and tropical pulses awareness is low in terms of varieties grown a more direct focus needs to be put on these other cereals and tropical pulses as they also have high market value and

Unlike the other crops **only 3% are unaware of variety grown.**

The estimated Total value **USD 5,327,139 (KSh 443,471,381)**

can also be used in processing. DK was the highest sought after variety at 43% as shown in the table below the yield is also relatively high at 543 Kilos per acre though this needs to be ascertained. There are other varieties with higher yield but are not as common this could be because they are not effectively marketed or might be susceptible to diseases and pest which can

be verified through research. The total estimated value of maize from this region can be valued at USD 5,327,139 (KSh 443,471,381) for the two years as indicated in detail in the table below.

Table 7 Maize Production &amp; Analysis - Mt. Kenya Region (Kenya)

Variety	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of bags annually with No. of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
DH	3	7	364	0.80	455	5	10	1688	119,473	2891	204,619
511	1	2	500	2.00	250	3	6	1688	18,756	2891	32,122
512	0	1	200	0.50	400	4	9	1688	15,004	2891	25,698
8031	1	2	550	4.50	122	1	3	1688	9,169	2891	15,704
513	7	20	535	0.80	669	7	15	1688	501,711	2891	859,269
Common	0	1	100	0.50	200	2	4	1688	7,502	2891	12,849
DK	43	119	651	1.20	543	6	12	1688	2,421,624	2891	4,147,461
Hybrid	2	5	650	1.00	650	7	14	1688	121,911	2891	208,794
Katuman i	5	15	315	1.00	315	4	7	1688	177,240	2891	303,555
Kimeru	1	4	400	1.00	400	4	9	1688	60,018	2891	102,791
Local	9	24	540	1.20	450	5	10	1688	405,120	2891	693,840
01	0	1	900	1.00	900	10	20	1688	33,760	2891	57,820
02	0	1	300	1.00	300	3	7	1688	11,253	2891	19,273
Pannar	2	5	762	1.50	508	6	11	1688	95,278	2891	163,181

Pioneer	12	33	621	1.00	621	7	14	1688	768,715	2891	1,316,561
White	9	26	704	1.00	704	8	16	1688	686,603	2891	1,175,930
Ndeka	0	1	240	0.50	480	5	11	1688	18,005	2891	30,837
Unkown	3	7	762	1.00	762	8	17	1688	200,084	2891	342,680
Averages			505	1	379	4	8	3500			
Totals	10 0	274					Year 1	88% of 313=275	5,671,228	Year 2	9,712,985
7090	No. of farmers registered in year 1; 70% of 10128 - 7090							88% of 7090=6,239	128,664,691	88%*10128=8,913	314,806,690
						USD Dollar	Year 1 - See Appendices	77.4	1,662,335		
							Year 2 - See Appendices	85.9	3,664,804		
						Total In USD	Total In USD for 10,128		5,327,139		

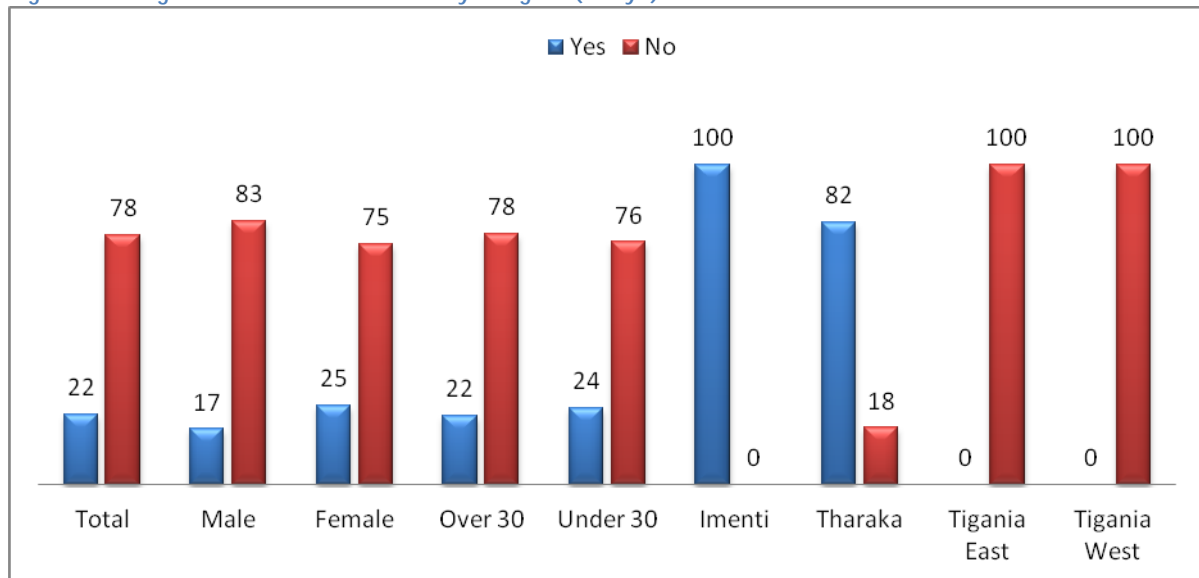
Source: Farm Concern International, 2011

#### 4.4.8. Sorghum

Sorghum is grown by 22% (2,229 of 10,128) of the farmers in the region while 78% do not grow the produce. It is primarily produced by Imenti (100%) and Tharaka (82%). Tigania east and west do not produce the commodity.

Sorghum is grown by 22% of the farmers in Mt. Kenya.

Figure 20 Sorghum Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

The Gardam (48%) and Kaguru (28%) varieties are the highest sought after varieties as shown in the table below the yields are at 548 and 316 kilos per acre also relatively high. There are other varieties with higher yield but are not as common this could be because they are not effectively marketed or might be susceptible to diseases and pest which can be verified through research. The total estimated value of Pigeon peas from this region can be valued at USD 1,209,189 (KSh 99,016,818) for the two years this is illustrated in detail in the table below.

The estimated total value of Sorghum for the two years - USD 1,209,189 (Ksh 99.016.818)

Table 8 Sorghum Production &amp; Analysis - Mt. Kenya Region (Kenya)

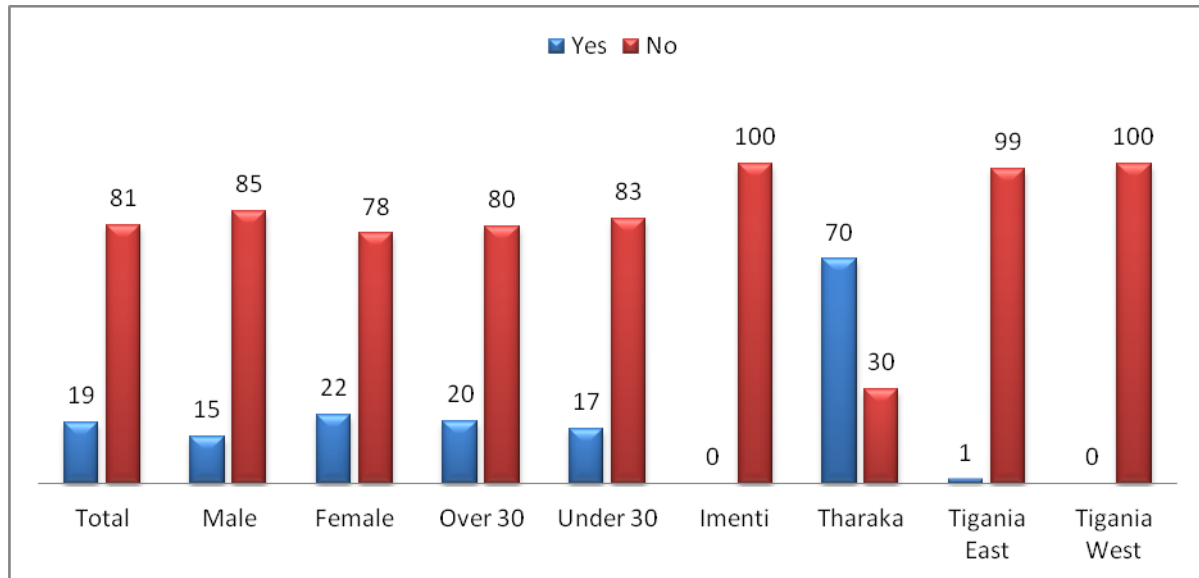
Variety	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
Gardam	48	33	548	1.40	391	4	9	2697	774,167	3040	872625
Gatiga	6	4	450	2.00	225	3	5	2697	53,940	3040	60800
Kaguru	28	19	316	0.70	451	5	10	2697	514,057	3040	579434
KARI	9	6	548	0.80	685	8	15	2697	246,326	3040	277653
Local	1	1	0	1.00	0	0	0	2697	-	3040	0
Muchureno	1	1	300	1.00	300	3	7	2697	17,980	3040	20267
Mugeeta	4	3	210	0.80	263	3	6	2697	47,198	3040	53200
Nguco	1	1	100	0.50	200	2	4	2697	11,987	3040	13511
White	1	1	200	1.00	200	2	4	2697	11,987	3040	13511
Averages			297	1	302	3	7	2697	1,677,641		1,891,001
Totals	100	69					Year 1	22% of 313=69	1,677,641	Year 2	1,891,001
		7090	No. of farmers registered in year 1; 70% of 10128 - 7090					22% of 7090=1560	37,929,275	Year 2=2,229	61,087,542
						USD Dollar	Year 1 - See Appendices	77.4	490,042		
							Year 2 - See Appendices	85.9	711,147		
						Total In USD	Total In USD for 10,128		1,201,189		

Source: Farm Concern International, 2011

#### 4.4.9. Millet

Millet is grown by 19% (1,925) of the farmers in the region while 81% (8,204) do not grow the produce. It is primarily produced in Tharaka (70%) in that order and dismally produced in Tigania East at 1%. The crop is not produced in Imenti and Tigania West.

Figure 21: Millet Production - Mt. Kenya Region (Kenya)



Source: Farm Concern International, 2011

The Kiraka (38%) Local (17%) and Zambia (14%) varieties are the highest sought after varieties as shown in the table below the yields are at 481, 408 and 400 kilos per acre there are also others sighted as indicated with higher yields though this information has not been substantiated. The total estimated value of Millet from this region can be valued at USD 134,995 (KSh 11,111,559) for the two years as detailed in the table below.

Table 9 Table 9: Millet Production &amp; Analysis - Mt. Kenya (Kenya)

Variety	%	Count	Average KG	Average Acreage	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price Year 1 (2009/2010)	Total Value Year 1 (2009/2010)	Average Price Year 2 (2010/2011)	Total Value Year 2 (2009/2011)
Common	2	1	200	1.00	200	2	4	4596	20,427	4886	21,716
Gardam	2	1	400	1.00	400	4	9	4596	40,853	4886	43,431
Gashart	5	3	533	1.33	401	4	9	4596	122,790	4886	130,538
Kathuri	2	1	600	1.50	400	4	9	4596	40,853	4886	43,431
Katumani	9	5	180	1.50	120	1	3	4596	61,280	4886	65,147
Kiraka	38	22	481	1.40	344	4	8	4596	771,982	4886	820,693
Kitharaka	2	1	400	1.00	400	4	9	4596	40,853	4886	43,431
Local	17	10	408	0.90	453	5	10	4596	463,004	4886	492,219
PM3	7	4	812	1.50	541	6	12	4596	221,153	4886	235,107
Unknown	3	2	39	0.50	77	1	2	4596	15,729	4886	16,721
Zambia	14	8	400	1.00	400	4	9	4596	326,827	4886	347,449
Averages			405	1	340	4	8		193,250.14		205,444
Totals	100	58					Year 1	19% of 313=59	193,250	Year 2	205,444
		7090	No. of farmers registered in year 1; 70% of 10128 - 7090				Year 2	19% of 7090=1347	4,411,999	19% of 10128=1924	6,699,560
							USD Dollar	Year 1 - See Appendices	77.4	57,003	
								Year 2 - See Appendices	85.9	77,993	
							Total In USD	Total in USD		134,995	

Source: Farm Concern International, 2011

## 4.4.10. Market Value

The information on the various crops and their market value has been summarized in the table below with information from previous research indicating that at least 47% of farm produce is consumed by the farmers and 44% is sold off. The 15% can be accounted for by lack of proper crop rotation, and soil fertility and yields reduction due to various agronomic factors. With this information we therefore account the market value from the table below at USD 30,995,347 out of which USD 14,567,813 is consumed and USD 12,708,092 is sold.

Table 10 Mt. Kenya's Market Value

Kenya	Year 1		Year 2	
Commodities	Values in Ksh	Value in USD	Values in Ksh	Value in USD
Common Beans	147,041,074	1,899,755	246,020,595	2,864,035
Soya Beans	7,810,000	100,904	11,110,000	129,336
Cow Peas	189,898,323	2,453,467	319,763,862	3,722,513
Green Grams	175,638,944	2,269,237	310,556,459	3,615,325
Pigeon Peas	155,501,800	2,009,067	282,759,031	3,291,723
Dolichos	75,030,797	969,390	86,524,485	1,007,270
Maize	128,664,691	1,662,335	314,806,690	3,664,804
Sorghum	37,929,275	490,042	61,087,542	711,147
Millet	4,411,999	57,003	6,699,560	77,993
Totals	921,926,903	11,911,200	1,639,328,225	19,084,147
Summary	Value in Ksh for Year 1 & Year 2			2,561,255,127
	Value in USD for Year 1 & Year 2		Market Value	USD 30,995,347
With reference from previous research farmers consume about 47% of farm produce				USD 14,567,813
With reference from previous research farmers sell about 44% of farm produce				USD 12,708,092

Source: Farm Concern International, 2011

#### 4.5. Buyer Seller Forums

One of the effective forums held are those between the buyers and the sellers. These forums are crucial in ensuring that the farmers had interactions with their customers as well as provide an opportunity to understand what goes on in the value chain. This was an eye opener to both parties as they got a chance to understand each other it was beneficial to the farmer because of the knowledge and the opportunities created for future business through these networking forums. These should be encouraged to ensure that the farmers continuously interact with current and potential customers. A photo of one of the buyer seller forums are included below. An attendance sheet is also attached in the appendix. Through the Commercial Village the farmers are able to sell to buyers

Figure 22 Sample Deposit Slips - Mt. Kenya Region for purchases

The image displays four sample deposit slips from Equity Bank Limited, Meru Branch, dated 18-05-2011. Each slip shows a cash deposit by Kianjati to various accounts, with amounts in KES and a 'Thank you' message from Carolynne.



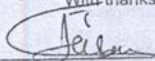
Slip	Account No.	Name	Amount (KES)	Remarks
1	014019431170	GICHUBURI MUKIUKI	29,900.00	CASH DEPOSIT BY KIANJATI
2	0140191283271	RITA MWATHUNA BHAKU	155,400.00	CASH DEPOSIT BY KIANJATI
3	0140191722246	STEPHEN KIMATHI JOSPHAT	95,800.00	CASH DEPOSIT BY KIANJATI
4	0140192944747	RUTH CIDWERO MURURU	134,550.00	CASH DEPOSIT BY KIANJATI

Each slip includes the following text:

TRANSACTION DATE: 18-05-2011  
 ACCOUNT NO: [Account Number]  
 NAME: [Name]  
 REMARKS: CASH DEPOSIT BY KIANJATI  
 Deposited the sum of [Amount]  
 AMOUNT: [Amount]  
 One Hundred Fifty Five Thousand Four Hundred Eighty Only  
 To the credit of my or our account  
 DEPOSITED BY: [Signature]  
 THANK YOU FOR YOUR CONTINUED SUPPORT  
 POSTED BY: :CNA0648 CAROLYNE  
 PRINTED BY: :CNA0648 CAROLYNE  
 PRINT TIME 18-05-2011 13:40:35

Source: Farm Concern International, 2011

EQUITY BANK LIMITED  
CASH DEPOSIT  
TRANSACTION NO: DC/17/2011  
TRANSACTION DATE: 06-05-2011  
ACCOUNT NO: 0040101470110  
TELLER 8  
MERU BRANCH  
NAME: JONAH MWONGELA MUTUNGA  
REMARKS: CASH DEPOSIT BY KIAMBATI MERU  
Deposited the sum of  
AMOUNT: 1,050,000.00 KES  
One Million Fifty Thousand Only.  
To the credit of my or our account  
DEPOSITED BY: KIAMBATI  
THANK YOU FOR YOUR CONTINUED SUPPORT  
POSTED BY :CN04257 CHARLES  
PRINTED BY :CN04257 CHARLES  
PRINT TIME 06-05-2011 10:41:42

	<h1>Farm Concern International</h1> <p>KARI Campus, Wajaki Way P. O. Box 15185-00100, Nairobi, Kenya Tel. +254-20-4444031, 2535320, 0725-495819 info@farmconcern.org</p>	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"><b>RECEIPT</b></div>		
No. <b>105</b>	Date <b>06/5/2011</b>	
Received from <u><b>JULIUS KIAMBATI</b></u>		
The sum of shillings <u><b>one million fifty thousand only</b></u>		
being payment of <u><b>289 BAG 2 MAIZE @ 2700</b></u>		
Debit A/C No. _____		
Kshs. <u><b>10,50,000</b></u> Cash/ Cheque No. _____	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p>With thanks</p>  <p>For and on behalf of <b>FARM CONCERN INTERNATIONAL</b></p> </div> <div style="border: 1px solid black; width: 100px; height: 100px; margin-left: 20px;"></div> </div>	

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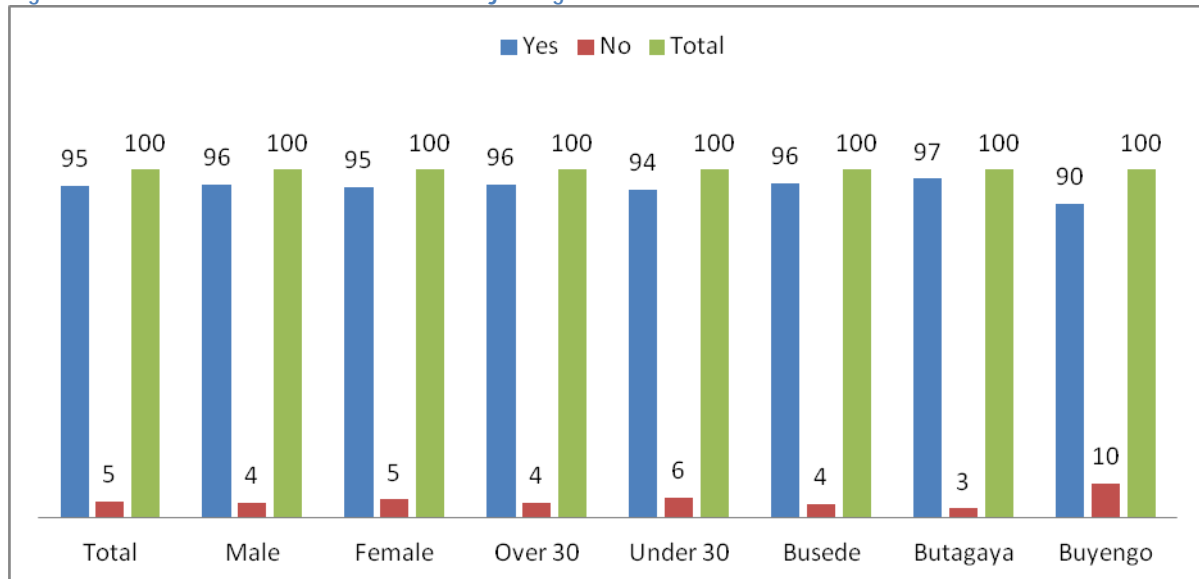
#### 4.6. Commodities Produced - Uganda

##### 4.6.1. Common Beans Production in Uganda

Common beans are grown by 95% (4,920 of 5178) of the farmers registered whilst 5% do not grow the produce. Beans production cuts across through gender, age and the regions. In terms of region representation in the three areas over 90% of all farmers grow the crop common beans are also widely consumed making the demand for the commodity quite high and is therefore a good source of income.

Common Beans are grown by **95% of the farmers** in Uganda.

Figure 25 Common Beans Production in Jinja - Uganda



Source: Farm Concern International, 2011

The most grown varieties are K20 at 38%, K131 and Kanye bwa with both at 12%. A good majority of these farmers i.e. 21% did not know what varieties they grow therefore adding to what was noticed in Kenya that a good percentage of the farmers are not aware of the varieties grown and this might affect the optimal yields. The total production for the two years can be aggregated to USD 5,177,747. As further indicated in the table that follows

The estimated value of Common Beans is **USD 5,177,747** in Jinja.

Table 10: Common Beans Production &amp; Analysis Jinja - Uganda

	%	Count	Average KG	Average Acre age	Average Yield	No. of 90 Kilo Bags	No of Seasons = 2	Average Price in Kshs Year 1 (2009/2010 )	Total Annual Value in Kshs (Year 1)	Average Price Year 2 (2010/2011 )	Total Annual Value in Kshs (Year 2)
K20	38	93	125	0.42	394	4	9	180000	146,400,000	180000	146,400,000
Baboge	1	2	35	0.42	84	1	2	180000	674,699	180000	674,699
K131	12	29	244	0.62	394	4	9	180000	45,651,613	180000	45,651,613
K132	5	13	335	0.40	838	9	19	180000	43,550,000	180000	43,550,000
Kabonge	5	13	63	0.30	210	2	5	180000	10,920,000	180000	10,920,000
Kanyebwa	12	28	181	0.40	453	5	10	180000	50,680,000	180000	50,680,000
Kasese	0	1	0	1.00	0	0	0	180000	-	180000	-
Local	1	2	20	0.50	40	0	1	180000	320,000	180000	320,000
Mutike	1	2	212	0.25	848	9	19	180000	6,784,000	180000	6,784,000
Nabe4	0	1	200	0.25	800	9	18	180000	3,200,000	180000	3,200,000
Nambale	3	8	441	0.40	1103	12	25	180000	35,280,000	180000	35,280,000
White	0	1	0	0.00	0	0	0	180000	-	180000	-

Averages			144	0	395	4					
Totals	100	243									
		3625	No. of farmers registered in year 1; 70% of 5,178 - 3,625				Year 1	95% of 255	343,460,312	Year 2	343,460,312
							Year 1	95% of 3,625	4,882,524,039	Year 2	6,974,264,682
						USD Dollar	Year 1 - See Appendices	2074	2,354,158		
							Year 2 - See Appendices	2470	2,823,589		
						Total In USD			5,177,747		

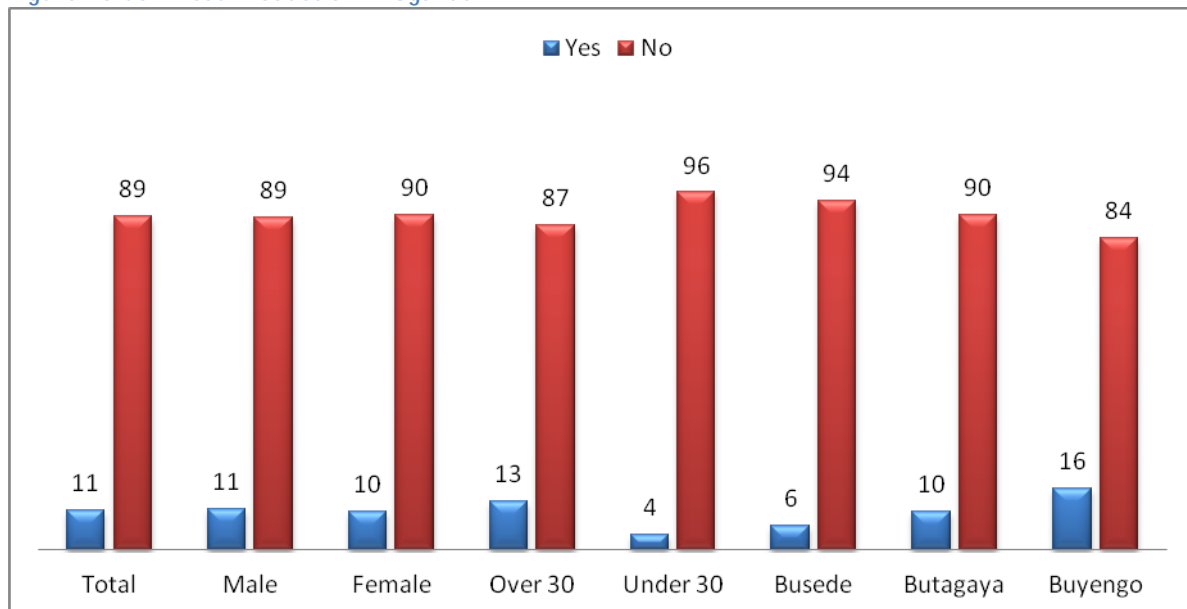
Source: Farm Concern International, 2011

#### 4.6.2. Cow Peas Production in Uganda

Cowpeas are grown by 11% (570 of 5178) of the farmers registered whilst 89% do not grow the produce. Cowpeas production is generally low in this area as indicated in diagram below consumption and demand might be low because the commodity is not highly consumed in this region. The crop is more produced by adults 13% compared to the youth 4% this might be because the youth have not been inculcated into growing cowpeas. Buyengo has the highest production at 16%, followed by Butagaya at 10% and 6% in Busede. Because the crop is not highly produced the variety grown is also not known and neither are they able to ascertain the exact figures in terms of yields produced and because of this it is difficult to estimate the values grown in terms of turnover and value as the information generated clearly showed that the crop is not focused on and few are able give clear data on the yields they get from producing this crop.

Cowpeas are grown by **11% of the farmers in Jinja.**

Figure 26 Cow Peas Production in Uganda



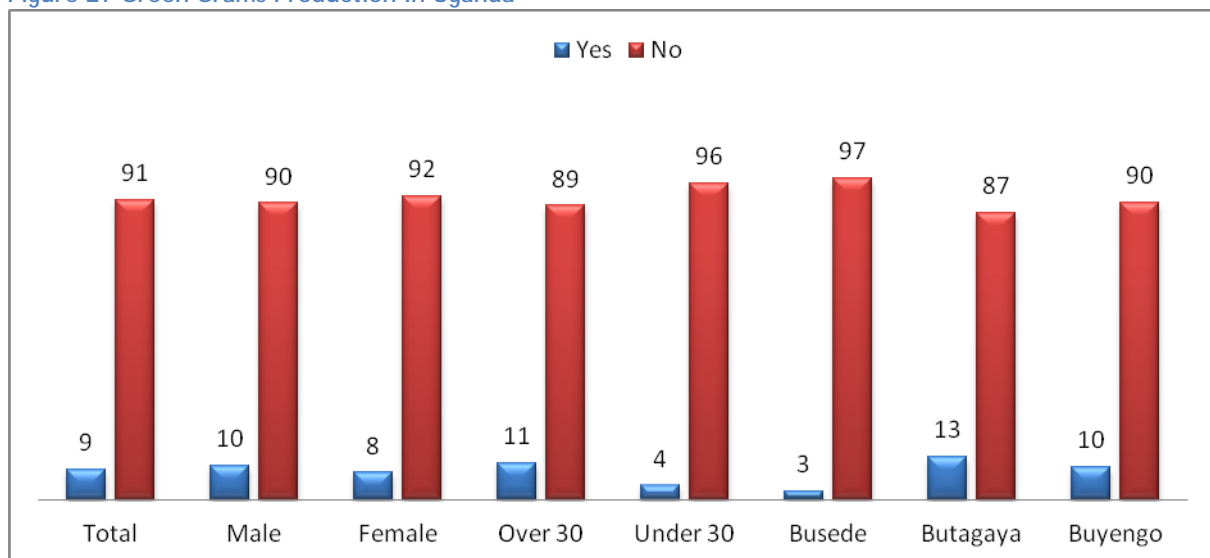
Source: Farm Concern International, 2011

#### 4.6.3. Green Grams Production in Uganda

Green grams are grown by 9% (466 of 5178) of the farmers registered whilst 91% do not grow the produce. Production is generally low in this area as indicated in diagram below consumption and demand might be low because the commodity is not highly consumed in this region. The crop is more produced by adults 11% compared to the youth 4% this might be because the youth have not been inculcated into growing the commodity. Butagaya has the highest production at 13%, followed by Buyengo at 10% and 3% in Busede. Because the crop is not highly produced the variety grown is also not known and neither are they able to ascertain the exact figures in terms of yields produced and because of this it is difficult to estimate the values grown in terms of turnover and value.

Green grams are grown by **9% of the farmers** in Jinja.

Figure 27 Green Grams Production in Uganda

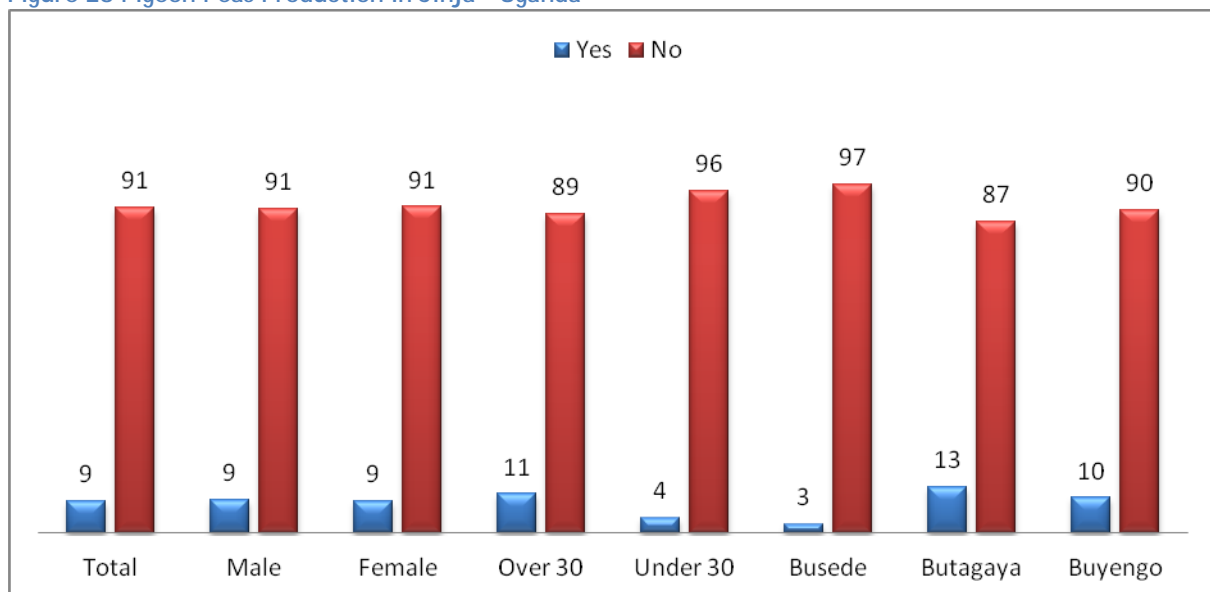


Source: Farm Concern International, 2011

#### 4.6.4. Pigeon Peas Production in Uganda

Pigeon peas are grown by 9% of the farmers registered whilst 91% do not grow the produce. Production is generally low in this area as indicated in diagram below consumption and demand might also be low because the commodity is not highly consumed in this region. The crop is more produced by adults 11% compared to the youth 4% this might be because the youth have not been inculcated into growing the commodity. Butagaya has the highest production at 13%, followed by Buyengo at 10% and 3% in Busede. Because the crop is not highly produced the variety grown is also not known and neither are they able to ascertain the exact figures in terms of yields produced and because of this it is difficult to estimate the values grown in terms of turnover and value.

Figure 28 Pigeon Peas Production in Jinja - Uganda



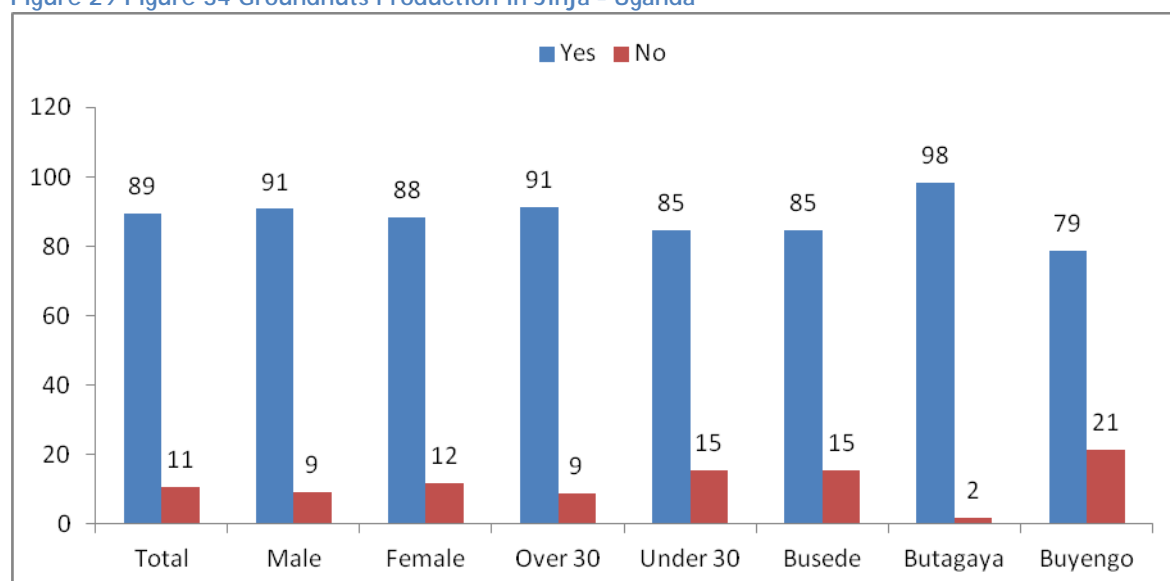
Source: Farm Concern International, 2011

#### 4.6.5. Ground Nuts Production in Uganda

Ground nuts are grown by 89% of the farmers registered whilst 11% do not grow the produce. The crop is produced by farmers of all gender and locations showing that this is a highly produced commodity. It is one of the produce consumed by the farmers and as such is not as commercial since every farmer grows the produce. The quantities grown differ from farmer to farmer with some recording very high yields and some recording low yields. This is a commodity that can be commercialized in this area with the right varieties to achieve optimal yields. Some of the varieties grown include red beauty at 58%, Sere nuts at 35% and 19% of the respondents growing an unknown variety of the commodity.

Ground nuts are grown by **89% of the farmers** in Jinja.

Figure 29 Figure 34 Groundnuts Production in Jinja - Uganda



Source: Farm Concern International, 2011

#### 4.6.6. Maize Production in Uganda

Maize production in Uganda is high with the main varieties listed below with the highest production being Longe 6 with 3 Tonnes an acre. Maize is grown by all farmers. The approximate yields being 10,035 Tonnes for season one and 6,260 Tonnes for season two. The total yield per year for these farmers can be calculated to be 16,295 Tonnes per year and the value estimated at UGS 13,036,000,000 (USD 5,277,733) in 2011 and USD 6,285,439 totalling USD 11,563,171 for the two years.

Table 11 Figure 34 Maize Production in Jinja - Uganda

Crop	Varieties grown	Yields (Season 1) in Tonnes / acre	Yields (Season 2) in Tonnes / acre
Maize	Longe 6	3 Tonnes / 1acre	2 Tonnes/1acre
	Longe 5	2.5 Tonnes	1.5 Tonnes
	Longe 4	2 Tonnes	1 Tonne
	MM3	2.3 Tonnes	1.5 Tonnes
	Longe 9	2 Tonnes	1 Tonnes

Source: Farm Concern International, 2011

#### 4.7. Post harvest & Storage Technologies

The project introduced various technologies to enable the farmers reduce post harvest losses and increase the length of storage period. This has enabled farmers' earn more from cereals sold through bulking as well as selling the during the off peak periods that sources and also selling cereals and tropical pulses when the prices are higher.

In Mt. Kenya Region, the project has been implemented in four project sites namely Tigania east, Tigania west, Imenti South and Tharaka. Various technologies have been introduced in these areas. In Jinja the project was initially implemented in Bushenyi and later moved to Jinja in three counties i.e. Busede, Butagaya and Buyengo

##### 4.7.1. Post Harvest Technologies

###### 4.7.1.1. *Handheld threshers and shellers*

Maize handling after harvesting has been poor hence leading to lots of losses due to the method of 'beating' maize cobs during threshing that has been largely used. The shellers have aggressively been promoted as a strategy to discourage farmers from 'beating' maize cobs. Shelling maize through the widely practiced traditional method of 'beating' cobs increases physical injury to the cereals and tropical pulses further creating a conducive environment encouraging aflatoxin and other pest infestation.

Picture 2 Hand Held Threshers and Shellers & an Illustration



Source: Farm Concern International, 2011

###### 4.7.1.2. *Drying Tarpaulin*

Traditionally, farmers in Jinja District and especially in Buyengo, Busede and Butagaya sub-counties dry their cereals and tropical pulses on bare ground. This method compromises the quality of the cereals and tropical pulses resulting to low selling price.

Drying of cereals and tropical pulses on tarpaulin has been introduced to the three sub-counties to address quality of cereals and tropical pulses especially discoloration of cereals and tropical pulses and introduction of foreign matter in cereals and tropical pulses. This is also coupled with winnowing

Picture 3 Winnowing and drying on the Tarpaulin - Meru



Source: Farm Concern International, 2011

#### 4.7.1.3. Moisture Meter

In Jinja, farmers store grain with a very high moisture content leading to rotting of cereals and tropical pulses thus deteriorating in quality therefore hence making farmers incur huge losses. Also, grain stored with high moisture contents is susceptible to aflatoxins making it unfit for sale or consumption. The moisture meter has come in handy to check the levels of moisture content in the cereals and tropical pulses before it is stored in the transitional stores.

The recommended moisture content before storage should be 13.5% and below. In all project sites in Jinja farmers have been trained on how to use moisture meter and many farmers have embraced the idea. Farmers are now storing grain at recommended moisture contents and incurring no losses as a result.

Picture 4 Moisture Meter Reading in Mt. Kenya &amp; Jinja Regions



Source: Farm Concern International, 2011

#### 4.7.2. Storage

Before the intervention post harvest and storage was not properly handled shelling was mainly done by hand or through beating the maize cobs when inside a gunny bag. Storage on the other hand was also not handled in the proper way some farmers stored in the open storage systems but did not construct the store in the right way this can be illustrated by the pictures shown below.

Picture 5 Some storage methods before the intervention



Source: Farm Concern International, 2011

#### 4.7.2.1. *Natural Fibre bags, Sisal or Jute*

Most of the farmers as noted during the project use the nylon bags which do not allow air to flow through the bags. The use of natural fibre, sisal or jute bags was promoted during the program. The farmers find the nylon bags easily accessible and affordable especially because they can recycle bags used to purchase farm inputs such as animal feeds and the implementation of these bags will be gradual though the benefits of using these bags has aggressively been marketed. This is illustrated below



Source: Farm Concern International, 2011

#### 4.7.2.2. *Metal Silo*

The metal silos role is to demonstrate the reduction of post harvest losses resulting from biotic factors such as storage pests such as weevils and insects such as the large grain borer one of the most common pest affecting the cereals and tropical pulses. The cost of storage is significantly reduced since no preservation chemicals are used on cereals and tropical pulses that are put in the silo. Farmers spend an average of about USD 1 per bag on the purchase of pesticides hence this innovation ensures that income is saved. The silos also prevent grain moulding or rotting which leads to reduction Aflatoxins within the grain. The silo's size can be customized according to the needs of the farmers ranging from one bag to 30 bags.

Picture 6 Metal Silo's in Jinja-Uganda &amp; Meru - Kenya



Source: Farm Concern International, 2011

#### 4.7.2.3. *Upgraded Stores*

The introduction of the upgraded stores was aimed at enhancing the storage of cereals and tropical pulses by individual farmers. The upgrading of the store included fixing rat guards, improving aeration and ensuring that the stores are raised well above the ground the illustration of an upgraded store is included below. Its objectives are

- To improve on the quality of cereals and tropical pulses stored.
- To enhance the drying of the grain due to proper aeration of the store.
- To reduce the post harvest losses that arise from pest i.e. rodents, weevils
- To use locally available materials to construct which are not a major constraint to farmers
- To improve food security in the areas of operation

Picture 7: Upgraded Store



Source: Farm Concern International, 2011

#### 4.7.2.4. *Transitional Stores*

Transitional stores are temporary storage structures where farmers within a Commercial Village temporary store their produce awaiting markets. The structures are modified to conventional requirements of the store through introduction of wooden pellets, good ventilations, recommended stacking and arrangement.

Picture 8 Transitional Stores in Jinja & Meru



Source: Farm Concern International, 2011

#### 4.7.2.5. *Cribs*

These are specially made structures that are used for mainly freshly harvested cereals and tropical pulses and allow them to dry to acceptable moisture content. Cribs are made of rafts and spaced to allow for the required level of aeration and are raised one meter above the ground. They are readily

adoptable for the local communities since they are easy to construct with locally available material and are not complicated technologically. The crib technology is being aggressively promoted by the project in Butagaya, Buyengo and Busede sub-counties of Jinja district. This is mainly to ensure that farmers dry their grain to acceptable moisture levels prior to shelling and indoor storage in the transitional or household stores.

#### 4.7.2.6. *Earthen Pots & Mud Huts*

These pots have basically been introduced due to food security campaigns that mainly target household storage. This has been majorly promoted in Tharaka since the quantities of food in the area are little in comparison to the rest of the areas.

Picture 9 Mud Hut



Source: Farm Concern International, 2011

#### 4.7.2.7. *Cocoons*

Cocoons are hermetic storage bags. The cereals and tropical pulses are stored under air tight conditions that cannot allow living organisms such as insect pests to survive. A cocoon has capacity of storing 230 (90kg) bags of cereals and tropical pulses. They are being promoted as communal stores at the commercial village level. Oxygen meters are also provided to farmers for checking oxygen levels in the cocoon.

The cocoons erected in Bituli commercial village in Butagaya sub-county and projected bulked grain being 20,000 kgs of maize and at Mbaale commercial village in Buyengo sub-county, farmers are projecting to store 5,000kgs of maize by mid September, 2011.

Picture 10 Hermetic Cocoon



Source: Farm Concern International, 2011

#### 4.8. Project Achievements

##### 4.8.1. Progress report Highlights



Source: Farm Concern International, 2011

#### 4.8.2. Project Achievements in Kenya

CVS has benefitted over 10,128 farmers in Mt. Kenya Region (Tigania East, Tigania West, Tharaka and Imenti South). It has also established 45 Commercial Villages, facilitated establishment of 5 Model (transitional) stores and over 60 improved model household stores. The project also facilitated the acquisition of various equipments for enhanced grain trading these included; metallic silos, weighing balances, sampling spears, cocoons, pallets/dunnages, Tarpaulin bags, moisture meters and maize shellers. The grain standards awareness was also created in partnership with public and private sector players.

#### 4.8.3. Project Achievements in Uganda

The project has benefitted 5,178 farmers in Bushenyi; Western and Jinja Eastern Uganda where 15 Commercial Villages established. The project facilitated the establishment of 2 Model(transitional) stores and over 75 improved model household stores as well as the acquisition of various equipments for enhanced grain trading such as Metallic silos, Weighing balances, Sampling spears, Cocoons, pallets/dunnages, Tarpaulin bags, Moisture meters and maize shellers . We also created awareness on grain standards in partnership with public and private sector players

#### 4.8.4. Other Project Achievements

Over 5,000 posters, 10,000 leaflets, DVD videos, simplified EAC maize standards hard book & pamphlets have been produced and distributed. 113 trainers (TOTs) developed for the last 2 years and supporting quality assurance and grain trading. All 15,306 farmers trained through village grain trading forums and business forums.

#### 4.8.5. Technologies Implemented in Mt. Kenya Region & Jinja Sites

Some of the top of the line technologies are introduced as mentioned above these are aimed at improving the storage methods used by farmers as well as enable them to store their cereals and tropical pulses longer allowing them to fetch better prices when sold later. Formerly the farmers would store their cereals and tropical pulses in improper ways and this would lead to losses being incurred due to poor post harvest methods being used a facet also handled during this project as well as ill equipped storage methods that did not store the cereals and tropical pulses for long. This would in turn make the farmers sell their produce after harvesting like everyone else the law of demand and supply would then work against them because they would be selling when supply is high and demand is low during these times the prices are low. Incomes generated would then be equally low.

#### 4.9. Challenges Experienced

There was an Aflatoxin out-break in Eastern Kenya leading to huge losses as a result of a ban on trade for cereals and tropical pulses from Eastern and Coastal region . There was also a period of drought causing losses in investments by farmers caused by lack of rainfall as expected with the farmers having already planted in readiness form the rains. Rain fed agriculture however will not be sustainable in the long run and the future farmers' needs to look for other sources of water in order for agriculture to be sustainable methods that can be utilized include drip irrigation and rain harvesting should be promoted. There was also prolonged wetness during the drying time leading grain losses due to rotting. The increasing cost of living and inflation also impacted on input costs and fuel costs resulting to increased costs with the buyers bargaining for lower prices.

## 4.10. Focus Group Discussions

**FOCUS GROUP DISCUSSION HELD ON 18<sup>TH</sup> OCTOBER, 2011 AT MWERU CHIEF'S CAMP.**

The facilitators explained the agenda of the discussion. The members introduced themselves among them consisting of Mrs. Kaburia (Mweru CV Coordinator) and other executive committees' members.

**Capacity Building and Increased Knowledge on Best Practices**

Discussion commenced with the first issue being the difference in handling of cereals before and after the Project. Linus Mugwimi explained how they used to store the maize without testing the moisture content this has since changed because now they are aware that before storage of the cereals, the Moisture levels should be 13.5%. Additionally he stated that he used to store his harvest in the living room but now after training by FCI staff he built a raised crib to store his produce at his compound.

**Formation of Trading Blocks through the Commercial Villages – Savings on Sourcing and transaction costs**

Francis Mwititi elaborated how the project has aided them in the marketing of cereals before the inception of the project they used to sell their produce to brokers at farm level but now they sell collectively to wholesale traders. He also added that they used to sell their produce as individuals and this limited them in terms of bargaining power since their quantities were not as much but the new approach of selling/ marketing their produce collectively increased economies of scale as well as the capacity to harness the strength in numbers and members diversity when trading as a Commercial Village. They are also able to collectively source inputs and therefore purchase the right varieties whilst saving on sourcing and transaction costs.

**Increased Incomes & Increased Storage Periods**

Phyllis Karimi brought to the attention of the forum that before the project commenced she used to store her cereals and tropical pulses for two weeks to one month before selling but now she keeps her cereals for up to six months allowing for prices to stabilize for the cereals to fetch better prices. Additionally she explained that through the numerous trainings that she underwent, she was able to learn the right use of dusting chemicals, right quantities and suitable brands. Priscilla Gitonga added that they have been able to control Afllatoxin which was a constant problem before the project but has now been managed.

## SUMMARY OF FOCUS GROUP DISCUSSIONS HELD IN MERU

Titus Kirimi highlighted difference in selling prices when selling collectively through the Commercial Villages a case in point being when they stored a bag of maize when the market price was Ksh 2500 three months after storage they sold at Ksh 3600. This brought a difference of Ksh 1100 per each bag within the three months they stored the cereals. In addition, he said that prior to the project he could not access wholesale traders for trade but now could access them he sells to them when he stored his cereals in a commercial village transitional store.

### Improved Technologies and Reduced Post Harvest Losses

Julia Kaburia explained the benefits of technologies accessible through the project brought to the community i.e. Cocoons and Metal silos which are used for cereals storage as well as the hand shellers used for shelling grain during the post harvest handling process. She noted that the hand shellers help reduce the loss that was brought by beating the Maize.

### Increased Women Participation:

Kaburia also noted that the project has made it possible for increased women participation in cereal marketing .compared to there before when it was men only who used to sell the harvest and fail to share the proceeds.

### Better Livelihoods:

The facilitator asked the CV members present if there has been any impact on their Livelihoods brought by the project. Lydia Gitonga from Ntakani CPG (Commercial Producer Group) who after storing her produce and selling at a profit, managed to buy a grade cow which now gives her milk which she sells to a local academy in the area. The cow has since given birth to two calves which she hopes to sell in future and get more income.

Picture 11 Mweru Focus Group Discussion



The project has met its objectives as highlighted in the proposal and through the explanations highlighted through the focus group discussions held. It has also had impact in the lives of the farmers in the region through the stories shared above. The members have also benefited through collective marketing in the commercial village. A photo and attendance sheet of the members present during this focus group discussion is included below. Also included in the appendix is

a copy of the CPG certificates through which the farmers trade. This is also an indication that the M&E tool is utilized as the supporting documents are submitted accordingly after each event. Samples of this tool are included in the appendix.

## **SUMMARY OF FOCUS GROUP DISCUSSIONS HELD AT BUSEDE, BUYENGO AND BUTAGAYA**

### **Capacity Building and Increased Knowledge on Best Practices**

Prior to the project intervention in Bulakabya Commercial Village farmers in this area are used to drying their cereals and tropical pulses on bare ground, shelling maize and storing maize with high moisture content as well as use crude methods of shelling like “beating” maize resulting in a high percentage of broken maize. Farmers are also used to selling off all the harvested cereals and tropical pulses during the harvesting period hence no storage practices. Farmers during harvesting are used to throwing maize on bare ground in the farms making it dirty and susceptible to aflatoxins and other toxins. They were also used to storing cereals in living rooms, kitchens, livestock stalls etc. This resulted in grain contamination.

However after the project intervention, farmers have started practising good post harvest handling techniques like use of hand shellers, drying of cereals and tropical pulses on tarpaulin and sieving cereals and tropical pulses before storage. They are also storing their cereals and tropical pulses at moisture content of 13.5 % and during harvesting farmers they are using containers; baskets, sacks, to carry their maize from the farms.

### **Formation of Trading Blocks through the Commercial Villages – Savings on Sourcing and transaction costs**

Bulakabya Commercial village farmers were selling their cereals and tropical pulses through middlemen (brokers) and on an individual basis they did not produce the required quality due to poor post-handling methods. Selling individually and poor post-harvest methods made it possible for the farmers to be manipulated by brokers during the transaction as there were no sources of pricing information it was what the brokers offered through the haggling process. They were also practising barter trade among the community members for example exchange of maize with beans.

After the Commercial Village Stores project intervention they have embraced collective marketing through the commercial village and are also able to sell their cereals and tropical pulses at a uniform price agreed upon by all members of the Commercial Village. Bulakabya CV has also improved on their grain quality management. The transaction costs have gone down after the intervention of CVS. Farmers are now able to source their production inputs collectively. With the establishment of bulking centres, farmers have reduced on transportation costs during marketing of cereals and tropical pulses as they sell collectively.

### **Increased Incomes & Increased Storage Periods**

Before the project intervention farmers in the area were selling their cereals and tropical pulses between Ush. 350.00 -500.00 per kilo for maize at harvesting time. Currently they are selling between Ush. 700.00 – 900.00 per kilo of maize after storing their cereals and tropical pulses for 2 months. Previously storage was being practised by very few farmers as most of them were selling all of their cereals and tropical pulses at harvesting time. Through CVS trainings they have been able to store

**FOCUS GROUP DISCUSSION HELD AT BUSEDE SUB- COUNTY****Improved Technologies and Reduced Post Harvest Losses**

During project implementation farmers are able to appreciate various technologies were introduced to them by Farm Concern International with support from USAID-COMPETE. These include introduction of hand shellers, drying of cereals and tropical pulses on tarpaulin, use of grain preservation chemicals and use of fibre bags as opposed to polypyrene bags for packing cereals and tropical pulses.

Farmers are were also introduced to use of pallets and platforms for stacking cereals and tropical pulses, use of moisture meters for determining moisture levels of cereals and tropical pulses before storage. They are currently sorting and cleaning cereals and tropical pulses by use of sieves as opposed to winnowing which took a longer time to clean large quantities of cereals and tropical pulses. They are also using standardized weighing scales for weight verification rather than estimates or use of tins as mode measurement. There has also been an introduction metallic silo which is being adopted as household storage facility. In turn, post harvest losses have reduced in the area since farmers are now harvesting at the right time (at the physiological maturity of cereals and tropical pulses). They are now employing good post harvest handling techniques. This has led to a reduction to 10%-20 % compared to 30%-40% loss before the project intervention.

**Increased Women Participation:**

Women in the CV are now being given equal opportunity with men when it comes to land access through ownership with their spouses, marketing of cereals and tropical pulses, access to income, and expenditure of the same during the project. This can be further attributed to women participation in savings and credit access in their respective Commercial Producer Groups.

**Better Livelihoods:**

From the intervention through the income earned farmers have been able to pay school fees for their children and bought household items. Farmers are food secure as a result of storing of cereals and tropical pulses. After carrying out aflatoxin awareness farmers are now consuming aflatoxin free cereals and tropical pulses.

Farmers' expectations have been met since they have improved on grain quality and they expect to fetch higher prices for their cereals and tropical pulses. They have also been exposed to various aspects and the dynamism of cereal markets. However they proposed that more emphasis is put in agronomic practices of the target crops. Farmers are now able to save their income from sale

Picture 12 Bukalabya CV Focus Group Discussion in Busede



Included herein is a picture of the Bukalabya Commercial Village Focus Group which represents some of the farmers that FCI was working with. Also included in the appendix is the attendance sheet for the group.

Source: Farm Concern International, 2011

Picture 13 Nakajo CV Focus Group Discussion in Buyengo



Source: Farm Concern International, 2011

**TRADER FOCUS GROUP DISCUSSION HELD IN JINJA**

**Sources of the cereals and grain legumes** - Traders in Bugembe Agali Awamu market in Jinja town source their cereals and tropical pulses from Kigumba, Busoga, Lira, Mbale, Mumba and Busia regions in Uganda.

**Most suitable market options for your produce** - The most suitable markets of their produce are institutions like schools, Shops around Jinja town and the district, traders in Kampala town and animal feed processors for Maize bran.

**Markets of operation & Storage** - Their markets of operation are Jinja region, Major towns in Uganda and in Southern Sudan in Uganda they have storage facilities available for usage. The length of storage depends on the demand of the cereals and flour by the markets they serve with the longest period being between 1 & 3 months. The traders do not however have sufficient facilities like dunnages and some of their stores are old and have leaking roofs, rodent and pests attack on cereals and tropical pulses.

**Mode of payment for their products** – The preferred mode of payment the traders is cash and Mobile Money Transfer.

**Value addition activities for your products** – The traders in the market engage in value addition activities such as sorting, cleaning and milling.

**Training in commodity trading and processing** - The traders have not received any trainings regarding trading and processing

**Import or export of commodities sold-** Traders of Bugembe Agali Awamu do not import any of the commodities they are selling. They do however export beans, and maize flour to Southern Sudan.

**Means of transport and Challenges encountered during transportation** - The most reliable means of transport for their products are lorries/trucks. Some of the mentioned challenges encountered in transportation include high charges due to increase in fuel cost, theft and poor road infrastructure in some regions.

**Capital Sources and Business Operation** - They usually use their savings to start their business as well as credit facilities from banks for start up capital. A trading licence is required to operate any business in Jinja Municipality.

**FARM CONCERN INTERNATIONAL ATTENDANCE FORM**

Date: 19/10/2011

NO.	NAME	VILLAGE	GROUP NAME	MOBILE NO.	SIGN
1.	CECELIA KANGARIA	WAMIUKA	WAMIUKA	0725742439	CNSamue
2.	MATTHEW MUIUGI	"	WAMIUKA	0737522778	Matthe
3.	JOSEPH GITONGA	"	WAMIUKA	0705183033	Joseph
4.	SAMWUEL NJAGI	"	WAMIUKA	0721300155	Samuel
5.	PRISCILLA KARIMI	"	WAMIUKA	0718678898	Priscilla
6.	LUCY GATUMI	"	WAMIUKA	0701170756	Lucy
7.	JACINTA MBURA	"	WAMIUKA	0701170756	Jacinta
8.	MARGARET KIBETI	"	WAMIUKA		M.M
9.	CELINA KANYUA	"	WAMIUKA	0716168358	Celina
10.	MARTHA GATIRIA	"	WAMIUKA		M.G
11.	MARGARET MUKAMI	"	WAMIUKA	0719395662	Margaret
12.	MARGARET KANYATA	"	WAMIUKA	0718739066	Margaret
13.	PURIFY GATIRIA	"	WAMIUKA	0720564519	Purify
14.	THOMAS MURITHI	"	WAMIUKA		Thomas
15.	JANET MUKHIA MUGA	"	WAMIUKA		Janet
16.	NAOM NTHAAKU	"	WAMIUKA		N.N.
17.	JACINTA GATUBA	"	WAMIUKA		JG
18.	GLADYS GATIRIA	"	WAMIUKA	0700600480	Glady
19.					
20.					

Source: Farm Concern International, 2011

## 5.0 Conclusion & Recommendations

### 5.1. Conclusion

The project was well received in the two regions with registration in Mt. Kenya Region being 10,128 farmers surpassing the target of 10,000 farmers and those in Jinja Region being 3,187 farmers this was because farmers in Jinja Region and 2,000 farmers in Bushenyi in Bushenyi they do not store as much and sell their cereals and tropical pulses shortly after harvest however promotion of proper post handling methods was focused on as traders and buyers complained of their cereals and tropical pulses being dirty which is a result of drying their cereals and tropical pulses on bare ground. They are encouraged to store their cereals and tropical pulses a least 3,187 managed to participate in the program.

The interventions are geared to address post harvest handling and storage methods and had significant impact with at least farmers in Kenya storing 7 bags each during the entire project bringing the total bags stored to 70,896 bags incorporating the right post harvest handling methods. In Uganda they managed to store 4 bags each during the entire project the total bags stored are 19,300 bags. Storage and marketing was done using the commercial village model and was effective due to the collective marketing model utilized which enables the farmers to build their capacity in terms of training provided where all the farmers are trained on best practices for cereals production, post harvest handling as well as storage methods, there are also demonstration on various activities carried out such as winnowing and drying. Through this model the farmers are also exposed to business forums where they interacted with potential customers to enable them understand the market needs as well as identify would be customers. They also enjoyed the economies of scale derived from joint input sourcing through linkages facilitated with suppliers, reduced costs and accessing high volume buyers without the Commercial Villages approach they would have individually not been able to access these markets.

### 5.2. Recommendations

Encouragement to continue building on the work started for even better livelihoods

- Farmers should be encouraged to continue building on what was started that this should not be another project that winds up with the project but the commercial villages should feel able enough to continue on to an even greater level and seek opportunities for growth and development for the commercial villages and its members.

#### 5.2.1. Seek Extension Services

- Farmers should be actively seek support through agricultural extension services; this includes demonstrations, information and training such as what and when to plant, how to prepare for planting, good agricultural practices, dealing with pests and diseases, harvesting and post harvest handling in order to increase productivity and sustainability of their production systems and improve their quality of life and livelihoods.
- Of critical continued necessity are business and marketing skills extension support that will be needed by small scale farmers if they are to be competitive market players and business partners. These will be through platforms such as Village Business Forums (VBFs) where farmers, buyers/traders and BDS players meets and

agree on relevant market institutions (trading rules, business partnership practices, terms of engagement, among others)

#### 5.2.2. Crop diversification and identification of other marketable opportunities

- There is need to promote other crops that are found to do well and highly demanded such as Cotton which is not grown by any of the farmers in the region, Soya Beans which are largely imported to Kenya due to lack of sufficient quantities in the country.

#### 5.2.3. Access to markets and buyers

- Farmers should be encouraged and facilitated to engaging in collective action through smallholder commercial blocks that are strong enough to negotiate and deal with overzealous brokers as well as supply to markets. Collective marketing as in this case will help farmers overcome problems such as lack of transport means for ferrying their produce to the market. Jointly, they can hire a truck that can transport their produce to urban markets, which will be less costly for each of them since this will be a shared cost.

#### 5.2.4. Saving and Credits schemes

- To enhance access to capital farmers should be encouraged to save and establish credit schemes for members to borrow within such schemes and also build up their understanding on credit management even as they are linked to formal financial institutions. Farmers should also be encouraged to invest through the commercial villages and set up facilities needed such as machines, storage and warehouses, post harvesting equipment which would enable them overcome the problem of their produce rotting or being rejected for lack of such facilities.

#### 5.2.5. Business development services at production level

- There is need to check into the quality of input supplies, chemicals and pesticides sold in the market and alliances created with manufacturers or wholesalers to provide discounts with purchases from the group this will enable the farmers address this critical issue.

#### 5.2.6. Roll out the project to other areas for a wider reach

- The project was implemented in two regions in two countries i.e. Kenya and Uganda and having had such impact it shows that there is room for implementation to other regions and this will have a two-fold impact in addressing poverty in the region

## 6.0 Appendix

## 6.1. Appendix I - M&amp;E Workplan

Years	Responsible Institution(s)	Year 1				Year 2			
Quarters		1	2	3	4	5	6	7	8
Conduct surveys to establish baselines	FCI								
Identify village stores and prepare tenancy agreement	FCI								
Renting storage facilities in Mt. Kenya Region Eastern Kenya through pre-negotiated tenancy systems	FCI								
Procurement of drying and quality control equipments and hermetic cocoons	FCI								
Hiring and training of store personnel	FCI/COMPETE								
Develop EAC simplified grain standards materials for producers and traders	FCI/COMPETE								
Develop training materials for trainers, farmers and buyers	FCI								
Conduct training on; <ul style="list-style-type: none"> <li>Quality management training workshops (Marketing sub-committees, Commercial Village sub-committees and Warehouse management committees)</li> <li>Community Technical Farmers (COTeFs) training workshops</li> <li>Staffs training on EAC maize standards and other harmonized cereal standards.</li> <li>Grain traders workshop on grain standards, specification and handling</li> </ul>	FCI								
Link input suppliers with producers and link producers with buyers	FCI								
Develop Community Technical Farmers (COTeFs) through training.	FCI								
Dissemination of standards and specification on quality and weight for identified buyers	FCI								
Create awareness on storage infrastructures services provided by FCI and COMPETE and benefits of utilizing this infrastructures.	FCI								
Collection, bulking cleaning, sorting, drying, storage	FCI								
Building M&E capacity	FCI/COMPETE								
Conduct market / members' satisfaction assessment	FCI								

Conduct post-evaluation survey	FCI/COMPETE								
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## 6.2. Appendix II - M&E Activity Tool

# COMPETE Monitoring and Evaluation

KRA:

Program Name: CVS  
Component Leader: ELIUD MUTEMBEI  
Event Name: store management leaders training  
Event Date: 02/04/2011  
Location/Venue: MIKINDURI CENTRAL  
Sponsors/Partners (if any): NONE

A. Stakeholder Participation (Individual )	Total	Male	Female
Total Number of Participants	13	5	8
Private Sector	13		
Public Sector			
Donor/Project/NGO			
Other			
<i>Comments: "Other" includes press</i>			
Totals	13	5	8

B. Stakeholder Contribution	Participants	Days	Unit Value (USD)	Total (USD)
Attendance work time	13	1	4.6	59.8
Estimated expenses ( Hotel, per diem, other)	13	1	1.875	24.375
Estimated travel costs				93.75
Event fees paid				
Event contributions (product samples)				
Speakers				25
Sponsorships				
TOTAL				202.925

**Event Name:** MAREGA CV LEADERS TRAINING ON BULKING & DOCUMENTATION  
QUALITY ISSUES, GOOD STORAGE PRACTICES

**Event Date:** 06/04/2007

Organisation	Represented (Participants) by	Gender disaggregation		Organisation disaggregation	Column1	Column2	Column3	Column4
		Male	Female	Private	Public	Association	Women-focussed	COTACT
CIAMATHA	FRED MICHUBU	1		1				0728-639688
CIAMATHA	NEWTON KIMATHI	1		1				0722-812817
MUTWIRI FARMERS	PETER MIRITI	1		1				0728-767516
MAREGA BOREHOLE	DANIEL MUGA	1		1				0716-016743
MUTWIRI FARMERS	STEPHEN MURUGU	1		1				0726-435695
BWANA EIGHT	SUSAN MUKOITI		1	1				0719-541248
MAREGA BOREHOLE	ELIZABETH MUKETHI		1	1				0701-060220
MAREGA BOREHOLE	JANE KARIMI MUTETHIA		1	1				0725-879386
MA REGA WERU	MARGRET MUTEMI		1	1				0712-088264
GACHIONGO	GRACE MWONJIRU		1	1				0718-555161
KANJA	SABINA MWAKAIGA		1	1				
KANJA	LUCY KAINDA		1	1				0714-356919
MAREGA MUTETHIA	CECYLINE KAGWIRIA		1	1				
<b>TOTAL</b>		<b>5</b>	<b>8</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	

## Documenting the Methodology of Data Collection and Data Quality

	Response and Comments
1. How did you generate this data?	USING THE ATTENDANCE LIST
2. Who in your organization is responsible for this data? Name and title	ELIUD MUTEMBEI
3. What is the procedure for documenting the participants? <i>Did you use sign in sheets, group photos.</i>	SIGN IN SHEET & PHOTOS
4. What did you use to confirm participation? Daily sign in sheets?	DAILY SIGN IN SHEET
5. How often did you verify the number of participants attending a training session? Did you register at the beginning and confirm the number at the end of the training session?	YES
6. Did you do a pre and post testing for the participants?	YES
7. Did you disaggregate participants?	YES
8. On what basis did you disaggregate? Was it by gender, geographic, sector, etc,	GENDER
9. How frequently do you discuss this data in-house? Do you have meeting notes that include discussion of this indicator data?	NOT YET
10. Do you have in-house reports that include this indicator data?	YES
COMMENTS:	

Please confirm that the documents below have been submitted with this form.

- |                                     |  |                        |
|-------------------------------------|--|------------------------|
| <input checked="" type="checkbox"/> | Event agenda/ training curriculum      | GROUP LEADERS TRAINING |
| <input checked="" type="checkbox"/> | Copies of signed registration sheets   | AVAILABLE              |
| <input checked="" type="checkbox"/> | Sample event materials used            | PHOTOS                 |
| <input type="checkbox"/>            | Sample completed event evaluation form |                        |

## 6.3. Appendix III - Kenya Commodity Production Analysis Tables

Common Beans Production in Kenya (%)										
Growing / NOT Growing	Yes/No	Total	Male	Female	Over 30	30 years & below	Imenti	Tharaka	Tigania East	Tigania West
Growing Common Beans	Yes	67	69	66	90	31	95	2	85	92
Not growing Common Beans	No	33	31	34	10	69	5	98	15	8
	Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

Soya Beans Production in Kenya %									
Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	0	1	0	1	0	4	0	0	0
No	100	99	100	99	100	96	100	100	100
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

Cow Peas Production in Kenya %									
Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	60	62	59	62	52	74	96	36	27
No	40	38	41	38	48	26	4	64	73
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

Green Grams Production in Kenya %									
Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	62	64	60	63	57	80	99	46	15
No	38	36	40	37	43	20	1	54	85
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

## Pigeon Peas Production in Kenya %

Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	56	52	58	55	60	59	80	42	39
No	44	48	42	45	40	41	20	58	61
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

## Dolichos Peas Production in Kenya %

Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	14	14	14	14	16	5	0	25	29
No	86	86	86	86	84	95	100	75	71
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

## Maize Production in Kenya %

Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	88	88	87	87	88	100	73	88	91
No	12	12	13	13	12	0	27	13	9
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

## Millet Production in Kenya %

Yes/No	Total	Male	Female	Over 30	Under 30	Imenti	Tharaka	Tigania East	Tigania West
Yes	19	15	22	20	17	0	70	1	0
No	81	85	78	80	83	100	30	99	100
Total	100	100	100	100	100	100	100	100	100

Source: Farm Concern International, 2011

## 6.4. Appendix IV - Kenya Commodity Production Analysis Tables

Common Beans Production Uganda %									
Yes/No	Total	Male	Female	Over 30	Under 30	Busede	Butagaya	Buyengo	
Yes	95	96	95	96	94	96	97	90	
No	5	4	5	4	6	4	3	10	
Total	100	100	100	100	100	100	100	100	

Source: Farm Concern International, 2011

Cow Peas Production Uganda %									
Yes/No	Total	Male	Female	Over 30	Under 30	Busede	Butagaya	Buyengo	
Yes	11	11	10	13	4	6	10	16	
No	89	89	90	87	96	94	90	84	
Total	100	100	100	100	100	100	100	100	

Source: Farm Concern International, 2011

Green Grams Production Uganda %									
Yes/No	Total	Male	Female	Over 30	Under 30	Busede	Butagaya	Buyengo	
Yes	9	10	8	11	4	3	13	10	
No	91	90	92	89	96	97	87	90	
Total	100	100	100	100	100	100	100	100	

Source: Farm Concern International, 2011

Pigeon Peas Production Uganda %									
Yes/No	Total	Male	Female	Over 30	Under 30	Busede	Butagaya	Buyengo	
Yes	9	9	9	11	4	3	13	10	
No	91	91	91	89	96	97	87	90	
Total	100	100	100	100	100	100	100	100	

Source: Farm Concern International, 2011

## 6.5. Appendix VI - USD Mean Rates

Table 12 Kenya Exchange Rate 2010 &amp; 2011

From	9/1/09 12:00 AM	To	8/31/10 12:00 AM	Mean Rate	77.43231
From	9/1/10 12:00 AM	To	10/19/11 12:00 AM	Mean Rate	85 <sup>2</sup> .9374

## Average Exchange Rates

Average: Weekly, monthly, quarterly, or yearly averages, for any time period since 1990

Average (Foreign Exchange Average Converter) is a multilingual currency exchange converter that calculates weekly, monthly, quarterly, or yearly average exchange rates for any user-specified time horizon. This is a one-to-many converter, meaning that you can find the average exchange rate for one currency to multiple currencies with one click. Historical requests are available by specifying the appropriate year for which the calculation is to be made. Additional charges can also be included in the conversion (cash, credit card, etc.) and the results displayed in HTML or CSV (comma separated) formats.<sup>3</sup>

Starting Date: 1/9/2009	Base Currency: USD	
Ending Date: 31/8/2010	Interbank rate: 0%	
* INDICATES INCOMPLETE YEAR		
UGX	Average	
	bid	Ask
2009	2037.80140	2074.43937

UGX	Average	
	bid	ask
2010	2408.63915	2469.68751
*2011	2805.33852	2871.28889

<sup>2</sup> Rates from Central Bank of Kenya (CBK)

<sup>3</sup> <http://www.oanda.com/currency/average>

## 6.6. Appendix VII - Attendance Sheet Buyer Seller Forum &amp; CPG Certificate

**FARM CONCERN INTERNATIONAL**



Date: 24/08/2011  
Project: CVS

  
Farm Concern  
INTERNATIONAL  
for the African farmer and consumer

ACTIVITY: buyer, seller forum

NAME	ORGANIZATION/GROUP	ID NO/PHONE NO.	Sign
LYDIA NKAITHA	KAMATAI - KAGUATA		LYD
CECYLINE KAGWIRIA	NDAREGA MUTEMBA	20774851 0714356919	CEC
JANE KARIMI	NDAREGA MUTEMBA	0701060220	JK
NANCY KATHOMI	KANTA	0723680692	NANCY
VERONICA KINJA	UPENDO	1347778 / 0711980415	VERONICA
JERUSAH MWONKARI	KANTA	0713410825	JERUSAH
SARAH GITONGA	MBERO CBO	0736690855	SARAH
DETER THANE	" "	0727294456	DETER
CHARLES NTERU	" "	07291660442	CHARLES
MARIA MATEMI	BURANA & KATHIRI	0725829386	MARIA
VERGINIA KATHIRIA	AMUTHETHU YOUTH	0719876416	VERGINIA
VICTORIA MUKUBU	" "		VICTORIA
RUTH NKAITHA	" "		RUTH
NIAMU MBURA	KANTA	0717728240	NIAMU
LUCY NCUKUBI	KAGUATA - KAGUATA		LUCY
MARION MWAKUNA	NERU	0717166539	MARION
MRIES THAIRU	MUTWIRI		MRIES
FRED MUTHOMBI	MUTWIRI	0728669628	FRED
STEPHEN MURUGA	MUTWIRI	0716016743	STEPHEN
MORE THAIRU	MUTWIRI	0713450602	MORE

Source: Farm Concern International, 2011

 Republic of Kenya		Certificate No. <b>148392</b>
<b>MINISTRY OF GENDER, CHILDREN &amp; SOCIAL DEVELOPMENT</b> <b>Certificate of Registration of</b> <b>Self-help Group/Project</b>		
<i>This is to Certify that</i>		
<b>NEEMA KIBULINE SELF-HELP GROUP</b> Group Name		
<b>TIGANIA/CD/076/2011</b> Registration No.	<b>2/3/2011</b> Date of Registration	
<b>KIERU</b> Sub-location / Ward		
<b>URINGU</b> Division	<b>MBEU</b> Location	
<b>TIGANIA WEST</b> Constituency	<b>TIGANIA WEST</b> District	
Is registered with the office of the District Gender & Social Development Officer (DGSDO) as a Self-Help Group/Project		
<b>ALEX M. KAGUTI</b> For District Gender & Social Development Committee		
<b>2/3/2011</b> Date of Issue		
<b>TIGANIA WEST</b> District		
 DISTRICT GENDER & SOCIAL DEVELOPMENT OFFICER TIGANIA WEST		
Note: The Contents of this Certificate should not be erased, altered or defaced in any way.		

6.7. Appendix VIII - Attendance Sheet Focus Group Discussion Bulakabya CV -  
Busede Sub County

22/10/2011

BULAKABYA COMMERCIAL VILLAGE

	NAME	FGD	TEL	SIGN
1	BASALIRWA DAVID		0392815227	<del>Basalirwa</del>
2	MUSASIZI GIDEON		0788856188	<del>Gideon</del>
3	AKELLO			L.A
4	NAKAMIA OLIVER		0788435768	N.O
5	KITAKA WINNE		0779382552	K.W
6	KIMBURWE AIDA			K.A
7	BALABA PENINAH		0753474046	<del>Peninah</del>
8	JANE ISABIRYE		0788960511	J. Isabirye
9	BIRUNGU BETTY		0778449743	Birungu
10	MWENENO CHRISTEN ISOBA			M.C. ISOBA
11	BYOGERO TAPENESI			B. Tapenesi
12	NABIRYE TAPENESI			NBT
13	Janipher Batala		0784356471	B.J
14	Balyazaki Ruth			B.R
15	BALIRANNE PRED		0785491183	<del>Baliranne</del>
16	BEGOMBA FRGD		0784924133	Frmd
17	Isabirye Alex			<del>Alex</del>
18	MUKUWA JANET			Mukuwa
19	NAVAFERO HADIA			NH
20	Sanyu Morren		0759266784	Sanyu
21	TULIRABA STEPHEN		0776542520	<del>Stephen</del>
22	MUSIMAMI SAMUEL		0787573038	<del>Musimami</del>
23	Babalanda Charles			<del>Charles</del>
24	MIREMBE ELIZABETH NAMAGANDA			<del>Miremba</del>

Source: Farm Concern International, 2011

## 6.8. Appendix IX - Attendance Sheet Focus Group Discussion Nakajo CV - Buyengo Sub County

## FARM CONCERN INTERNATIONAL

## ATTENDANCE LIST

Date: 22 Oct 2011

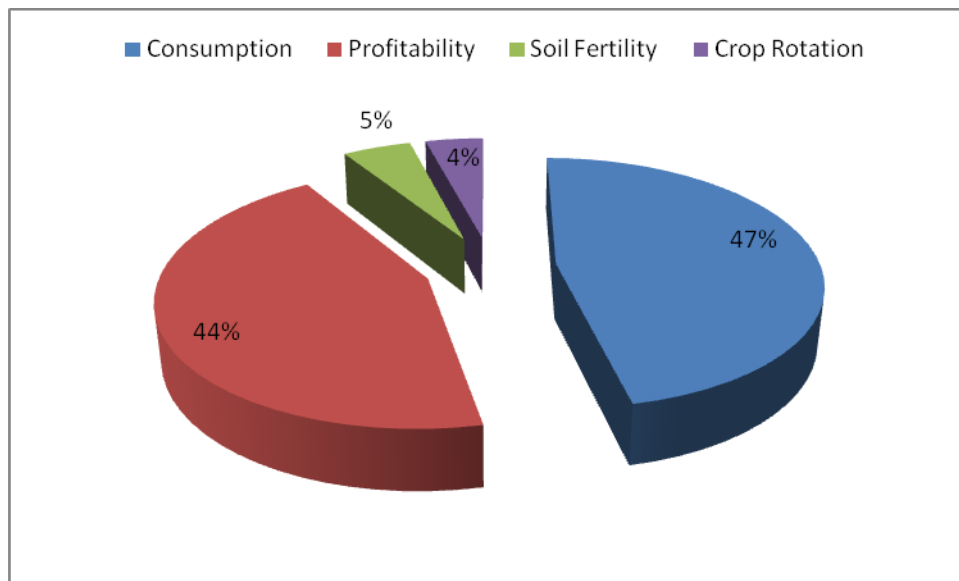
Activity: FGD

Venue: NAKAGYO COMMERCIAL VILLAGE STORES

No	Name	Contact	Village	Farmer Group	Gender	Designation	Sign
1	HUSA AGGREG	07558632	NAKAGYO	TWEWEYO FG	M	MEMBER	HUSA
2	HAUB BIONI	0753063372	NAKAGYO	KYOLYANIM- WI HEKI WEMA	M	MEMBER	HAUB
3	Kaiswa Ivan	075914924	NAKAGYO	Tweeweyo FG	m	member	Kaiswa
4	ISALANIA GEORGE	0758620737	NAKAGYO		M	member	ISALANIA
5	NAHALAMBA ESTHER	0788088625	NAKAGYO	Tweweyo FG	F	vice c/person	esther
6	SAFIYA ABDO		NAKAGYO	Tweweyo FG	F	member	Safiya
7	MONIKA TIRANBA		NAKAGYO	Tweweyo FG	F	member	monika
8	LUSI KALYA		BALUBONA	Tweweyo FG	F	member	Lusi
9	BABIRYE MARY		BUYONGO TU		F	member	Mary
10	DAMALI MUGENI		NAKAGYO	Tweweyo FG	F	member	Damali
11	NASANDE LOUISA		NAKAGYO	Tweweyo FG	F	member	N-L
12	JANEPHER KALIMO		NAKAGYO	Tweweyo FG	f	member	Janepher
13	ANNET BALUBAWA		BUYONGO	Tweweyo FG	F	member	Annet
14	LUSI KIMBU		Buyongo	Tweweyo FG	F	member	Lusi
15	ZAINABU JOWALI		NAKAGYO	Tweweyo FG	F	member	Zaina
16	KADIJJA SWADIKI		NAKAGYO	Tweweyo FG	F	member	Kadijja
17	ZILIYA MUGENI		NAKAGYO	Tweweyo FG	F	member	Ziliya
18	SAYINA JUMA		NAKAGYO	Tweweyo FG	F	member	Sayina
19	BASEMELA PETER		NAKAGYO	Tweweyo FG	F	member	Basemela
20	MILIYA BALUBAWA		NAKAGYO	Tweweyo FG	F	member	Miliya

Source: Farm Concern International, 2011

6.9. Appendix IX - Consumption, Profitability, Soil Fertility & Crop Rotation Share as highlighted by the farmers from a previous FCI Study



Source: Farm Concern International, 2011